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=> fil reg
FILE 'REGISTRY' ENTERED AT 14:24:50 ON 30 SEP 2004
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
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Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES:   29 SEP 2004  HIGHEST RN 754169-63-6
DICTIONARY FILE UPDATES:  29 SEP 2004  HIGHEST RN 754169-63-6

TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

Crossover limits have been increased.  See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more
information enter HELP PROP at an arrow prompt in the file or refer
to the file summary sheet on the web at:
http://www.cas.org/ONLINE/DBSS/registryss.html

=> d l85 ide can tot

L85  ANSWER 1 OF 4  REGISTRY  COPYRIGHT 2004 ACS on STN
RN   81623-30-5  REGISTRY
CN   2(3H)-Furanone, dihydro-4-[(R)-hydroxy(4-hydroxy-3-methoxyphenyl)methyl]-3-
     [(4-hydroxy-3-methoxyphenyl)methyl]-, (3R,4R)- (9CI)   (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN   2(3H)-Furanone, dihydro-4-[hydroxy(4-hydroxy-3-methoxyphenyl)methyl]-3-[(4-
     hydroxy-3-methoxyphenyl)methyl]-, [3R-[3α,4β(R*)]]-
OTHER NAMES:
CN   (-)-allo-Hydroxymatairesinol
CN   5-Allohydroxymatairesinol
CN   Allohydroxymatairesinol
FS   STEREOSEARCH
MF   C20 H22 O7
CI   COM
LC   STN Files:   BEILSTEIN*, CA, CAPLUS, CASREACT, CHEMCATS, TOXCENTER,
       USPATFULL
         (*File contains numerically searchable property data)
DT.CA  CAplus document type:  Journal; Patent
RL.P   Roles from patents:  BIOL (Biological study); RACT (Reactant or
       reagent); USES (Uses)
RL.NP  Roles from non-patents:  ANST (Analytical study); BIOL (Biological
       study); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP
       (Properties); RACT (Reactant or reagent); USES (Uses)

Absolute stereochemistry.  Rotation (-).
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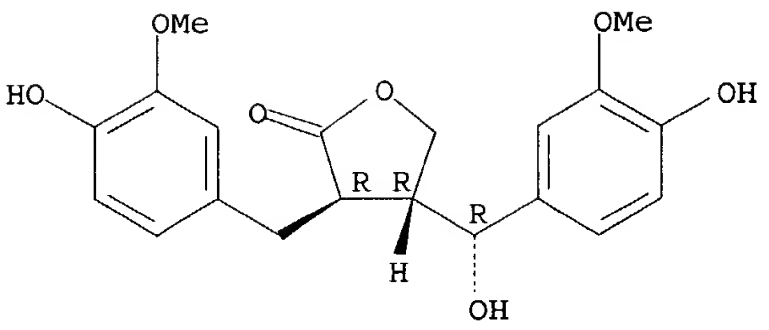


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

21 REFERENCES IN FILE CA (1907 TO DATE)
21 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 141:156949

REFERENCE 2: 141:6955

REFERENCE 3: 139:197289

REFERENCE 4: 139:128028

REFERENCE 5: 139:117269

REFERENCE 6: 139:117267

REFERENCE 7: 139:8300

REFERENCE 8: 138:4458

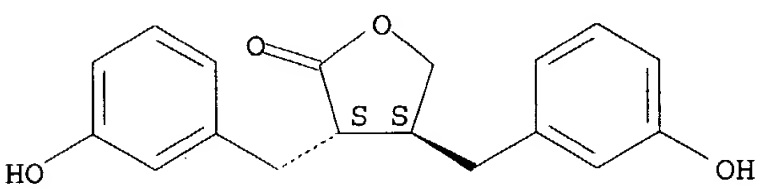
REFERENCE 9: 135:166155

REFERENCE 10: 133:235125

L85 ANSWER 2 OF 4 REGISTRY COPYRIGHT 2004 ACS on STN
RN **78473-71-9** REGISTRY
CN **2(3H)-Furanone, dihydro-3,4-bis[(3-hydroxyphenyl)methyl]-, (3R,4R)-rel- (9CI)** (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN **2(3H)-Furanone, dihydro-3,4-bis[(3-hydroxyphenyl)methyl]-, trans-**
OTHER NAMES:
CN **(±)-enterolactone**
CN **Enterolactone**
CN HPMF
CN **trans-2,3-Bis(3-hydroxybenzyl)-γ-butyrolactone**
FS STEREOSEARCH
DR 76721-88-5, 82580-69-6, 110872-76-9
MF **C18 H18 O4**
CI COM
LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CAPLUS, CASREACT, CHEMCATS, CSCHEM, DDFU, DRUGU, EMBASE, IPA, MRCK*, NAPRALERT, PROMT, TOXCENTER, USPAT2, USPATFULL
(*File contains numerically searchable property data)
DT.CA CAplus document type: Conference; Dissertation; Journal; Patent
RL.P Roles from patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); OCCU (Occurrence); PREP (Preparation); PROC (Process); RACT (Reactant or reagent); USES (Uses)
RLD.P Roles for non-specific derivatives from patents: BIOL (Biological study); PREP (Preparation); USES (Uses)

RL.NP Roles from non-patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)
RLD.NP Roles for non-specific derivatives from non-patents: BIOL (Biological study); FORM (Formation, nonpreparative); OCCU (Occurrence); PROC (Process)

Relative stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

225 REFERENCES IN FILE CA (1907 TO DATE)
6 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
228 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 141:222809

REFERENCE 2: 141:212883

REFERENCE 3: 141:206960

REFERENCE 4: 141:105811

REFERENCE 5: 141:104518

REFERENCE 6: 141:103196

REFERENCE 7: 141:99221

REFERENCE 8: 141:53197

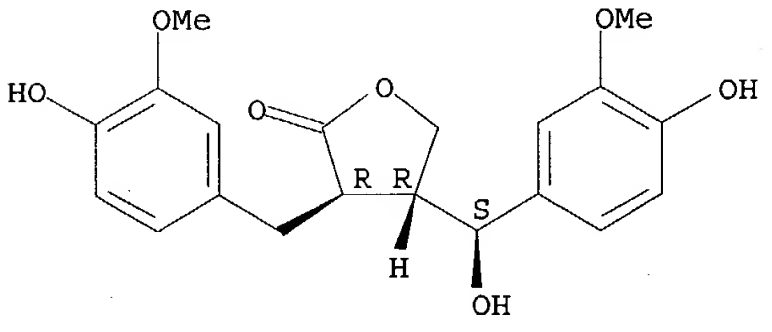
REFERENCE 9: 140:420066

REFERENCE 10: 140:399547

L85 ANSWER 3 OF 4 REGISTRY COPYRIGHT 2004 ACS on STN
RN **20268-71-7** REGISTRY
CN 2(3H)-Furanone, dihydro-4-[(S)-hydroxy(4-hydroxy-3-methoxyphenyl)methyl]-3-[(4-hydroxy-3-methoxyphenyl)methyl]-, (3R,4R)- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 2(3H)-Furanone, dihydro-4-(α-hydroxyvanillyl)-3-vanillyl- (8CI)
CN 2(3H)-Furanone, dihydro-4-[hydroxy(4-hydroxy-3-methoxyphenyl)methyl]-3-[(4-hydroxy-3-methoxyphenyl)methyl]-, [3R-[3α,4β(S*)]]-
OTHER NAMES:
CN **(-)-Hydroxymatairesinol**
CN **α-Hydroxymatairesinol**
CN **5-Hydroxymatairesinol**
CN **Hydroxymatairesinol**
FS STEREOSEARCH
DR 29764-17-8
MF C20 H22 O7
CI COM
LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN*, BIOSIS, CA, CAPLUS, CASREACT, CHEMCATS, IPA, NAPRALERT, PIRA, TOXCENTER, USPAT2, USPATFULL

(*File contains numerically searchable property data)
DT.CA CAplus document type: Conference; Journal; Patent
RL.P Roles from patents: BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); PROC (Process); RACT (Reactant or reagent); USES (Uses)
RLD.P Roles for non-specific derivatives from patents: BIOL (Biological study); PREP (Preparation); USES (Uses)
RL.NP Roles from non-patents: ANST (Analytical study); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)

Absolute stereochemistry. Rotation (-).



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

65 REFERENCES IN FILE CA (1907 TO DATE)
3 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
65 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 141:156949

REFERENCE 2: 141:99221

REFERENCE 3: 141:6955

REFERENCE 4: 140:219654

REFERENCE 5: 140:110360

REFERENCE 6: 140:65203

REFERENCE 7: 139:197289

REFERENCE 8: 139:179927

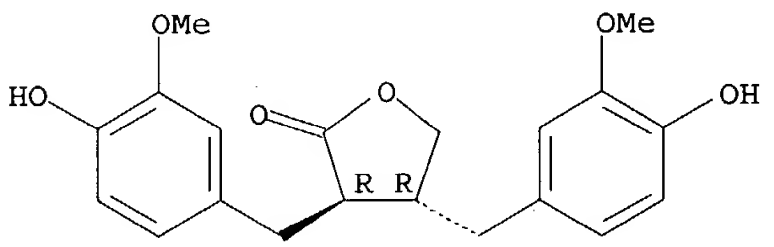
REFERENCE 9: 139:179926

REFERENCE 10: 139:128028

L85 ANSWER 4 OF 4 REGISTRY COPYRIGHT 2004 ACS on STN
RN **580-72-3** REGISTRY
CN **2(3H)-Furanone, dihydro-3,4-bis[(4-hydroxy-3-methoxyphenyl)methyl]-, (3R,4R)- (9CI)** (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN **2(3H)-Furanone, dihydro-3,4-bis[(4-hydroxy-3-methoxyphenyl)methyl]-, (3R-trans)-**
CN **2(3H)-Furanone, dihydro-3,4-divanillyl- (8CI)**
CN **Matairesinol (6CI)**
OTHER NAMES:
CN **(-)-Matairesinol**

CN **(8R,8'R)-(-)-Matairesinol**
FS STEREOSEARCH
DR 41328-88-5
MF **C20 H22 O6**
CI COM
LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CHEMCATS, CSCHEM, DDFU, DRUGU, EMBASE, IPA, MEDLINE, NAPRALERT, PIRA, PROMT, SPECINFO, TOXCENTER, USPAT2, USPATFULL
(*File contains numerically searchable property data)
DT.CA CAplus document type: Conference; Journal; Patent
RL.P Roles from patents: BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); PRP (Properties); RACT (Reactant or reagent); USES (Uses)
RLD.P Roles for non-specific derivatives from patents: BIOL (Biological study); PREP (Preparation); USES (Uses)
RL.NP Roles from non-patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)
RLD.NP Roles for non-specific derivatives from non-patents: BIOL (Biological study); OCCU (Occurrence)

Absolute stereochemistry. Rotation (-).



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

283 REFERENCES IN FILE CA (1907 TO DATE)
6 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
286 REFERENCES IN FILE CAPLUS (1907 TO DATE)
6 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 141:206960

REFERENCE 2: 141:139670

REFERENCE 3: 141:139321

REFERENCE 4: 141:105811

REFERENCE 5: 141:99221

REFERENCE 6: 141:53096

REFERENCE 7: 141:6955

REFERENCE 8: 141:6381

REFERENCE 9: 140:411264

REFERENCE 10: 140:399547

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L86 ANSWER 1 OF 2 REGISTRY COPYRIGHT 2004 ACS on STN
RN **9003-99-0** REGISTRY
CN Peroxidase (9CI) (CA INDEX NAME)
OTHER NAMES:
CN Baylase RP
CN Biobake soy
CN Biobake Wheat
CN Coniferyl alcohol peroxidase
CN E.C. 1.11.1.7
CN Enzylon OL 50
CN Eosinophil peroxidase
CN Extensin peroxidase
CN Guaiacol peroxidase
CN Guaiacolase
CN Heme peroxidase
CN Lactoperoxidase
CN Manganese-dependent peroxidase
CN Mn-dependent peroxidase
CN MPO
CN Myeloperoxidase
CN Novozym 502
CN Oxyperoxidase
CN PEO-131
CN Peroxidase 51004
CN Protoheme peroxidase
CN Pyrocatechol peroxidase
CN Pyrogallol peroxidase
CN Scavengase p20
CN Scopoletin peroxidase
CN SP 502
CN Thiocyanate peroxidase
CN Thiol peroxidase
CN Verdoperoxidase
DR 9013-92-7, 9039-19-4, 191289-36-8
MF Unspecified
CI COM, MAN
LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSCHEM, CSNB, DDFU, DRUGU, EMBASE, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MSDS-OHS, NAPRALERT, NIOSHTIC, PIRA, PROMT, TOXCENTER, ULIDAT, USPAT2, USPATFULL
Other Sources: EINECS**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)
DT.CA CAplus document type: Book; Conference; Dissertation; Journal; Patent; Preprint; Report
RL.P Roles from patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)
RLD.P Roles for non-specific derivatives from patents: ANST (Analytical study); BIOL (Biological study); CMBI (Combinatorial study); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)
RL.NP Roles from non-patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)
RLD.NP Roles for non-specific derivatives from non-patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
36557 REFERENCES IN FILE CA (1907 TO DATE)
2318 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
36631 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 141:230712

REFERENCE 2: 141:230109

REFERENCE 3: 141:225960

REFERENCE 4: 141:224708

REFERENCE 5: 141:224317

REFERENCE 6: 141:224282

REFERENCE 7: 141:224278

REFERENCE 8: 141:224172

REFERENCE 9: 141:223221

REFERENCE 10: 141:223005

L86 ANSWER 2 OF 2 REGISTRY COPYRIGHT 2004 ACS on STN
RN **7782-44-7** REGISTRY
CN **Oxygen (8CI, 9CI)** (CA INDEX NAME)
OTHER NAMES:
CN Dioxygen
CN Molecular oxygen
CN Oxygen molecule
FS 3D CONCORD
DR 1338-93-8, 14797-70-7, 80217-98-7, 80937-33-3
MF O2
CI COM
LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CABA, CANCERLIT, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CHEMSAFE, CIN, CSCHEM, CSNB, DDFU, DETHERM*, DIOGENES, DIPPR*, DRUGU, EMBASE, ENCOMPLIT, ENCOMPLIT2, ENCOMPPAT, ENCOMPPAT2, GMELIN*, HSDB*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, MSDS-OHS, NIOSHTIC, PDLCOM*, PIRA, PROMT, PS, RTECS*, SPECINFO, TOXCENTER, TULSA, ULIDAT, USAN, USPAT2, USPATFULL, VTB
(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)
DT.CA CAplus document type: Book; Conference; Dissertation; Journal; Patent; Preprint; Report
RL.P Roles from patents: ANST (Analytical study); BIOL (Biological study); CMBI (Combinatorial study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)
RLD.P Roles for non-specific derivatives from patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)
RL.NP Roles from non-patents: ANST (Analytical study); BIOL (Biological study); CMBI (Combinatorial study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)
RLD.NP Roles for non-specific derivatives from non-patents: ANST (Analytical

study); BIOL (Biological study); CMBI (Combinatorial study); FORM (Formation, nonpreparative); MSC (Miscellaneous); OCCU (Occurrence); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses)

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PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

349327 REFERENCES IN FILE CA (1907 TO DATE)
27975 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
349909 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1: 141:235211

REFERENCE 2: 141:235146

REFERENCE 3: 141:235138

REFERENCE 4: 141:234918

REFERENCE 5: 141:234912

REFERENCE 6: 141:234833

REFERENCE 7: 141:234796

REFERENCE 8: 141:234727

REFERENCE 9: 141:234726

REFERENCE 10: 141:234500

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(FILE 'HOME' ENTERED AT 13:25:41 ON 30 SEP 2004)
SET COST OFF

FILE 'HCAPLUS' ENTERED AT 13:26:09 ON 30 SEP 2004
L1 1 S US20030100514/PN OR US2001-991971#/AP,PRN

FILE 'REGISTRY' ENTERED AT 13:26:42 ON 30 SEP 2004
L2 3 S 580-72-3 OR 20268-71-7 OR 78473-71-9
E C20H22O7/MF
E C20H22O7/MF
L3 37 S E3 AND 46.150.18/RID AND OC4/ES AND 3/NR
L4 26 S L3 AND 3 METHOXY
L5 26 S L4 AND 4 HYDROXY
L6 21 S L5 AND FURANONE
SEL RN 1 6 7 8 10 11 16 20
L7 8 S E1-E8
L8 7 S L7 NOT 718614-97-2
SEL RN 4 5
L9 5 S L8 NOT E9-E10
L10 32 S L3 NOT L9
E C20H22O6/MF
L11 56 S E3 AND OC4/ES AND 46.150.18/RID AND 3/NR
L12 12 S L11 AND 4 HYDROXY AND 3 METHOXY AND FURANONE
L13 4 S L12 NOT (D/ELS OR 13C# OR LABELED)

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                E C18H18O4/MF
L14           37 S E3 AND OC4/ES AND 46.150.18/RID AND 3/NR
L15            8 S L14 AND 3 HYDROXY AND BIS AND FURANONE
L16            5 S L15 NOT (D/ELS OR LABELED OR 13C)
L17           14 S L2,L9,L13,L16
L18            9 S L17 AND (?MATAIRESINOL? OR ?ENTEROLACTON?)/CNS
L19            5 S L17 NOT L18
L20           14 S L17-L19
                SEL RN
L21            8 S E1-E14/CRN

     FILE 'HCAPLUS' ENTERED AT 13:39:29 ON 30 SEP 2004
L22          527 S L20
L23          583 S ENTEROLACTON? OR HYDROXYMATAIRESINOL? OR MATAIRESINOL?
L24          640 S L22,L23
                E AHOTUPA M/AU
L25           91 S E3-E5
                E ERIKSSON J/AU
L26          221 S E3-E11,E34-E36
                E KANGAS L/AU
L27          127 S E3-E5,E8-E11
                E UNKILA M/AU
L28           48 S E3-E5
                E KOMI J/AU
L29           12 S E3-E6
                E PERALA M/AU
L30           21 S E3,E4,E6
                E KORTE H/AU
L31           23 S E3,E4,E10
                E HORMOS/PA,CS
L32           27 S E3-E19
L33           16 S L24 AND L25-L32
                E PHAGOCYTE/CT
L34         3427 S E3,E12
                E E12+ALL
                E E2+ALL
L35        32274 S E5+NT
                E NEUTROPHIL/CT
                E E3+ALL
L36        29239 S E24,E23
                E T CELL/CT
                E E4+ALL
L37        40180 S E20-E23
L38        70058 S E19+NT
                E E18+ALL
L39       169033 S E19,E18+NT
                E MYELOID/CT
                E E11+ALL
L40         2697 S E2
L41            4 S L24 AND L34-L40
                E ANIMAL RESPIRATION/CT
L42         1613 S E3 (L) BURST
                E RESPIRATION, ANIMAL/CT
L43         1421 S E4
                E REACTIVE OXYGEN/CT
                E E4+ALL
L44        22365 S E3
L45            2 S L24 AND L42-L44

     FILE 'REGISTRY' ENTERED AT 14:09:41 ON 30 SEP 2004
L46            1 S OXYGEN/CN

     FILE 'HCAPLUS' ENTERED AT 14:09:52 ON 30 SEP 2004
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L47             1 S L24 AND L46
                  E LIGNAN/CT
                  E E4+ALL
L48           356 S L24 AND E2
L49           356 S L24 AND E2+NT
L50             4 S L41,L45,L47
L51             1 S L50 AND L33
L52             3 S L50 AND L48,L49
L53             4 S L50-L52
L54            65 S L20 (L) (THU OR DMA OR PAC OR PKT)/RL
L55           160 S L24 AND (PHARMACEUT? OR PHARMACOL? OR PATHOL? OR IMMUN?)/SC,S
L56           164 S L54,L55
L57             9 S L56 AND L33
L58             3 S L56 AND L53
L59             4 S L53,L58
L60             8 S L57 NOT L59

     FILE 'REGISTRY' ENTERED AT 14:15:46 ON 30 SEP 2004
L61             1 S 9003-99-0

     FILE 'HCAPLUS' ENTERED AT 14:15:57 ON 30 SEP 2004
L62             2 S L61 AND L24
L63             1 S L24 AND MYELOPEROXIDASE
L64             6 S L24 AND ?PEROXIDASE?
L65             6 S L62-L64
L66            17 S L59,L60,L65
L67            14 S L66 AND (PD<=20011126 OR PRD<=20011126 OR AD<=20011126)
L68             3 S L66 NOT L67
                  SEL DN AN 1 3 9 11 12 14 L67
L69             8 S L67 NOT E1-E18
L70            11 S L68,L69
                  E TRANPLANTATION/CT
                  E TRANSPLANTATION/CT
L71           812 S E3
                  E TRANSPLANT/CT
L72           494 S E3
L73         87407 S E5+OLD,NT,PFT,RT
L74          5085 S E61
L75         76222 S E69+OLD,NT,PFT,RT
L76           812 S E72,E74
                  E E3+ALL
                  E E2+ALL
L77          7719 S E7-E16
L78         35079 S E6+NT
L79          6674 S E43+NT
L80         30585 S E42+NT
L81             5 S L24 AND L71-L80
L82             4 S L81 NOT AROMATASE/TI
L83            14 S L70,L82 AND L1,L22-L45,L47-L60,L62-L82
                  SEL HIT RN

     FILE 'REGISTRY' ENTERED AT 14:24:16 ON 30 SEP 2004
L84             6 S E1-E6
L85             4 S L84 AND L20
L86             2 S L84 AND L61,L46

     FILE 'REGISTRY' ENTERED AT 14:24:50 ON 30 SEP 2004

=> fil hcaplus
FILE 'HCAPLUS' ENTERED AT 14:25:17 ON 30 SEP 2004
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)
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FILE COVERS 1907 - 30 Sep 2004 VOL 141 ISS 14
FILE LAST UPDATED: 29 Sep 2004 (20040929/ED)

This file contains CAS Registry Numbers for easy and accurate
substance identification.

=> d l83 all hitstr tot

L83 ANSWER 1 OF 14 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2004:738451 HCAPLUS
ED Entered STN: 10 Sep 2004
TI Lignans and neolignans useful as cathepsin inhibitors, and their use
IN Jean, Daniel; Rabhi, Cherif; Schwaab, Veronique
PA LMD, Fr.
SO Fr. Demande, 24 pp.
CODEN: FRXXBL
DT Patent
LA French
IC ICM A61K031-357
ICS A61K031-343; C07D319-20; C07D307-80; C07D407-10; A61P035-00;
C07D319-00; C07D307-00
CC 1-12 (**Pharmacology**)
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI FR 2851919	A1	20040910	FR 2003-2584	20030303
WO 2004080379	A2	20040923	WO 2004-FR504	20040303

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

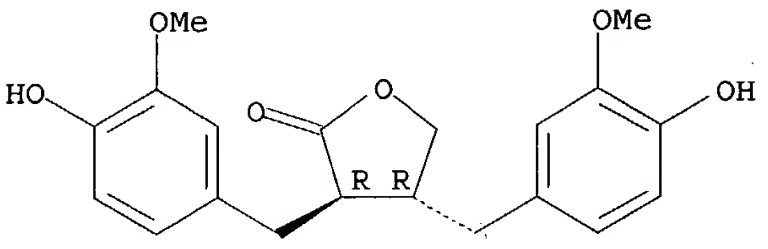
PRAI FR 2003-2584 A 20030303
CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
FR 2851919	ICM	A61K031-357
	ICS	A61K031-343; C07D319-20; C07D307-80; C07D407-10; A61P035-00; C07D319-00; C07D307-00

AB The invention discloses the use of lignans and neolignans as inhibitors of cathepsins. The compds. of the invention may be used e.g. to inhibit metastases and as hepatoprotectants.
ST cathepsin inhibitor lignan neolignan; metastasis inhibition hepatoprotection lignan cathepsin inhibitor

IT INDEXING IN PROGRESS
IT Cytoprotective agents
(hepatoprotective; lignan and neolignan cathepsin inhibitors, and use)
IT Toxicity
(hepatotoxicity; lignan and neolignan cathepsin inhibitors, and use)
IT Antitumor agents
Cosmetics
Feed
Fish
Food
Human
Organ preservation
Pangium edule
(lignan and neolignan cathepsin inhibitors, and use)
IT Proteins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(lignan and neolignan cathepsin inhibitors, and use)
IT **Lignans**
Natural products, pharmaceutical
Neolignans
RL: COS (Cosmetic use); FFD (Food or feed use); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(lignan and neolignan cathepsin inhibitors, and use)
IT Neoplasm
(metastasis; lignan and neolignan cathepsin inhibitors, and use)
IT Liver
(toxicity; lignan and neolignan cathepsin inhibitors, and use)
IT 9004-08-4, Cathepsin 9047-22-7, Cathepsin B 60616-82-2, Cathepsin L
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(lignan and neolignan cathepsin inhibitors, and use)
IT 77053-44-2P, Americanin B 77053-45-3P, Americanin D 133838-66-1P, Isoamericanol A 214344-43-1P
RL: COS (Cosmetic use); FFD (Food or feed use); NPO (Natural product occurrence); PAC (Pharmacological activity); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); USES (Uses)
(lignan and neolignan cathepsin inhibitors, and use)
IT **580-72-3, Matairesinol** 29388-59-8, Secoisolariciresinol 59332-00-2, Eusiderin
RL: COS (Cosmetic use); FFD (Food or feed use); **PAC (Pharmacological activity)**; **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(lignan and neolignan cathepsin inhibitors, and use)
RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Cassidy, A; WO 02080702 A 2002 HCAPLUS
(2) Eckerman, C; WO 0059946 A 2000 HCAPLUS
(3) Ford, J; PLANT POLYPHENOLS 2: CHEMISTRY, BIOLOGY, PHARMACOLOGY, ECOLOGY 1999, P675 HCAPLUS
(4) Gu, W; TETRAHEDRON LETTERS 2000, V41(32), P6079 HCAPLUS
(5) Madaus & Co Dr; GB 2035300 A 1980 HCAPLUS
(6) Matsumoto, K; TETRAHEDRON LETTERS 1999, V40(16), P3185 HCAPLUS
(7) Merck & Co Inc; EP 0159565 A 1985 HCAPLUS
(8) Sampath, K; US 6489514 B1 2002 HCAPLUS
IT INDEXING IN PROGRESS
IT **580-72-3, Matairesinol**
RL: COS (Cosmetic use); FFD (Food or feed use); **PAC (Pharmacological activity)**; **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(lignan and neolignan cathepsin inhibitors, and use)
RN 580-72-3 HCAPLUS
CN 2(3H)-Furanone, dihydro-3,4-bis[(4-hydroxy-3-methoxyphenyl)methyl]-, (3R,4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



L83 ANSWER 2 OF 14 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2004:203863 HCAPLUS
DN 140:219654
ED Entered STN: 14 Mar 2004
TI Lignan complexes with cyclodextrins and their uses in food products, dietary supplements or pharmaceutical compositions
IN Jaervinen, Tomi; Jarho, Pekka; **Unkila, Mikko**; Hiilovaara-teijo, Mervi
PA **Hormos Medical Corporation, Finland**
SO PCT Int. Appl., 26 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM C08B037-16
ICS A61K031-724; A61K031-34
CC 44-6 (Industrial Carbohydrates)
Section cross-reference(s): 17, 43, **63**

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2004020474	A1	20040311	WO 2003-FI511	20030624
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
FI 2002001545	A	20040301	FI 2002-1545	20020829
PRAI FI 2002-1545	A	20020829		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2004020474	ICM	C08B037-16
	ICS	A61K031-724; A61K031-34

OS MARPAT 140:219654
AB This invention concerns an inclusion complex of a lignan or lignan ester with a cyclodextrin. Furthermore, the invention concerns food products, dietary supplements or pharmaceutical compns. comprising said complex.
ST inclusion complex cyclodextrin lignan food dietary pharmaceutical compn
IT **Lignans**
RL: FFD (Food or feed use); IMF (Industrial manufacture); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(cyclodextrin complexes; lignan complexes with cyclodextrin and their uses in food products, dietary supplements or pharmaceutical compns.)
IT Drugs

Health products
(lignan complexes with cyclodextrin and their uses in food products, dietary supplements or pharmaceutical compns.)

IT Inclusion compounds
RL: FFD (Food or feed use); IMF (Industrial manufacture); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(lignan complexes with cyclodextrin and their uses in food products, dietary supplements or pharmaceutical compns.)

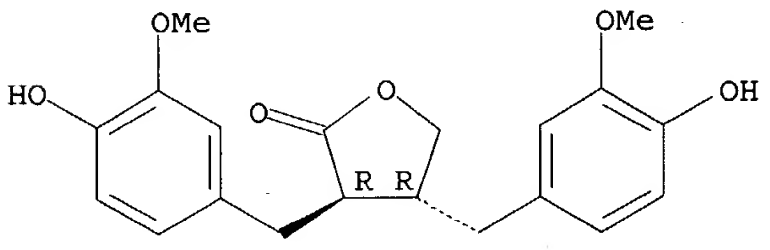
IT 484-39-9DP, Liovil, lignan derivs., cyclodextrin complexes 487-36-5DP, Pinoresinol, lignan derivs., cyclodextrin complexes 518-55-8DP, α-Conidendrin, lignan derivs., cyclodextrin complexes 548-29-8DP, Isolariciresinol, lignan derivs., cyclodextrin complexes **580-72-3DP**, **Matairesinol**, lignan derivs., cyclodextrin complexes 1177-14-6DP, DL-Syringaresinol, lignan derivs., cyclodextrin complexes 7585-39-9DP, β-Cyclodextrin, hydroxypropyl ether, inclusion compds. with lignans 7585-39-9DP, β-Cyclodextrin, inclusion compds. with lignans 7770-78-7DP, Arctigenin, lignan derivs., cyclodextrin complexes 10016-20-3DP, α-Cyclodextrin, inclusion compds. with lignans 17465-86-0DP, γ-Cyclodextrin, inclusion compds. with lignans **20268-71-7DP**, **Hydroxymatairesinol**, lignan derivs., cyclodextrin complexes 27003-73-2DP, Lariciresinol, lignan derivs., cyclodextrin complexes 29388-59-8DP, Secoisolariciresinol, lignan derivs., cyclodextrin complexes 34444-37-6DP, Nortrachelogenin, lignan derivs., cyclodextrin complexes 53250-61-6DP, Oxomatairesinol, lignan derivs., cyclodextrin complexes 568593-01-1DP, Picearesinol, lignan derivs., cyclodextrin complexes
RL: FFD (Food or feed use); IMF (Industrial manufacture); **THU (Therapeutic use)**; BIOL (Biological study); PREP (Preparation); USES (Uses)
(lignan complexes with cyclodextrin and their uses in food products, dietary supplements or pharmaceutical compns.)

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Suntory Limited; EP 0387000 A2 1990 HCAPLUS
(2) van Uden, W; J Nat Prod 1997, V60, P401 HCAPLUS
(3) Vincieri, F; Il Farmaco 1994, V49(1), P63 HCAPLUS

IT **580-72-3DP**, **Matairesinol**, lignan derivs., cyclodextrin complexes **20268-71-7DP**, **Hydroxymatairesinol**, lignan derivs., cyclodextrin complexes
RL: FFD (Food or feed use); IMF (Industrial manufacture); **THU (Therapeutic use)**; BIOL (Biological study); PREP (Preparation); USES (Uses)
(lignan complexes with cyclodextrin and their uses in food products, dietary supplements or pharmaceutical compns.)

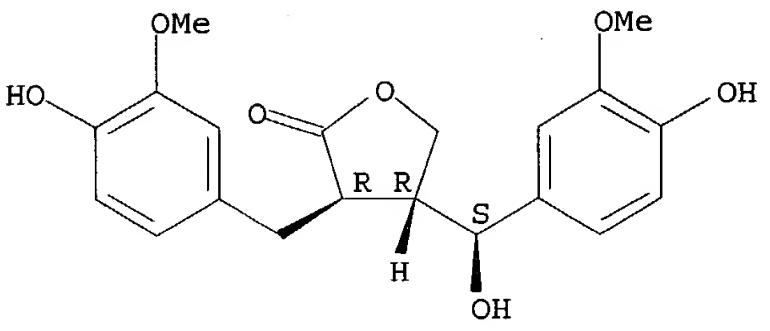
RN 580-72-3 HCAPLUS
CN 2(3H)-Furanone, dihydro-3,4-bis[(4-hydroxy-3-methoxyphenyl)methyl]-, (3R,4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 20268-71-7 HCAPLUS
CN 2(3H)-Furanone, dihydro-4-[(S)-hydroxy(4-hydroxy-3-methoxyphenyl)methyl]-3-[(4-hydroxy-3-methoxyphenyl)methyl]-, (3R,4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



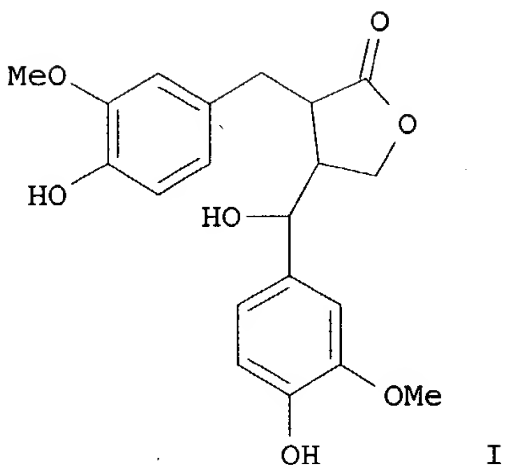
L83 ANSWER 3 OF 14 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2004:2687 HCAPLUS
DN 140:65203
ED Entered STN: 02 Jan 2004
TI Lignan topical formulations
IN **Korte, Helena**; Lehtola, Veli-Matti; **Unkila, Mikko**; Hiilovaara-Teijo, Mervi; **Ahotupa, Markku**
PA **Hormos Nutraceutical Oy Ltd., Finland**
SO PCT Int. Appl., 25 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM A61K031-341
CC 63-6 (**Pharmaceuticals**)
Section cross-reference(s): 62
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004000304	A1	20031231	WO 2003-FI375	20030515
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	FI 2002001184	A	20031220	FI 2002-1184	20020619
PRAI	FI 2002-1184	A	20020619		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2004000304	ICM	A61K031-341

OS MARPAT 140:65203
GI



I

AB This invention concerns a topical formulation comprising a lignan or lignan ester in a dermatol. acceptable vehicle. The formulation can be either a cosmetic formulation or a pharmaceutical formulation. E.g., water-in-oil emulsions contained a lignan such as **hydroxymatairesinol** (I) or **matairesinol** dibutyrate, an emulsifier such as sorbitan fatty acid ester, humectant such as glycerol, preservative, and water.

ST lignan topical pharmaceutical cosmetic

IT Antioxidants
Cosmetics
(lignan topical formulations)

IT **Lignans**
RL: COS (Cosmetic use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(lignan topical formulations)

IT Drug delivery systems
(topical; lignan topical formulations)

IT 484-39-9, Liovil 487-36-5, Pinoresinol 518-55-8, α-Conidendrin 548-29-8, Isolariciresinol 1177-14-6 7770-78-7, Arctigenin **20268-71-7, Hydroxymatairesinol** 27003-73-2, Lariciresinol 29388-59-8, Secoisolariciresinol 34444-37-6, Nortrachelogenin 53250-61-6, Oxomatairesinol 568593-01-1, Picearesinol
RL: COS (Cosmetic use); **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(lignan topical formulations)

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

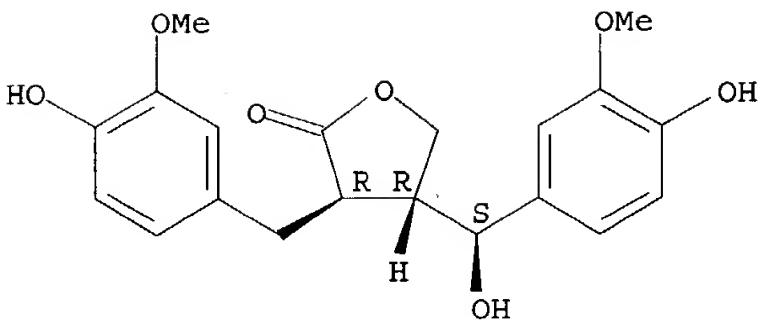
(1) Cedars-Sinai Medical Center; WO 0103687 A2 2001 HCAPLUS
(2) Unilever N V; WO 0108651 A1 2001 HCAPLUS

IT **20268-71-7, Hydroxymatairesinol**
RL: COS (Cosmetic use); **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(lignan topical formulations)

RN 20268-71-7 HCAPLUS

CN 2(3H)-Furanone, dihydro-4-[(S)-hydroxy(4-hydroxy-3-methoxyphenyl)methyl]-3-[(4-hydroxy-3-methoxyphenyl)methyl]-, (3R,4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



L83 ANSWER 4 OF 14 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2003:590821 HCAPLUS
DN 139:128028
ED Entered STN: 01 Aug 2003
TI Method for prevention of diseases in coeliac patients
IN **Unkila, Mikko**
PA Finland
SO U.S. Pat. Appl. Publ., 5 pp.
CODEN: USXXCO
DT Patent
LA English
IC ICM A61K031-70
ICS A61K035-78
NCL 514022000; 514025000; 424769000
CC 1-9 (**Pharmacology**)
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 2003144216	A1	20030731	US 2002-54900	20020125
WO 2003061649	A1	20030731	WO 2003-FI6	20030107

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRAI US 2002-54900 A 20020125

CLASS

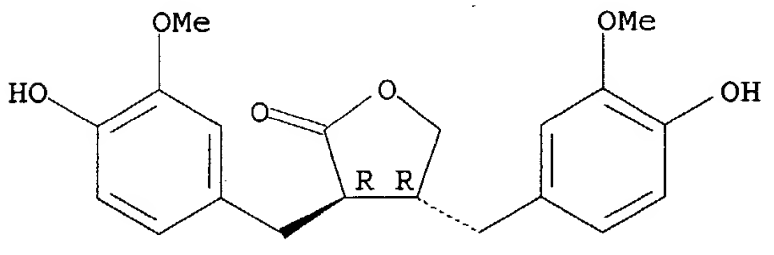
PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 2003144216	ICM	A61K031-70
	ICS	A61K035-78
	NCL	514022000; 514025000; 424769000

AB Methods for prevention of cancers, precancers, certain non-cancer, hormone dependent diseases and/or cardiovascular diseases in a person suffering from coeliac disease, based on administering of a lignan to the person. A method for increasing the level of **enterolactone** or another metabolite of a lignan in a person's serum is also disclosed, where the person suffers from coeliac disease, thereby causing prevention of a cancer or a certain non-cancer, hormone dependent disease in the person, based on administering of a lignan to the person.

ST celiac disease prevention treatment
IT Prostate gland, disease
(benign hyperplasia; method for prevention of diseases in celiac patients)

IT Intestine, neoplasm
(colon; method for prevention of diseases in celiac patients)
IT Urethra
(dyssynergia; method for prevention of diseases in celiac patients)
IT Intestine, neoplasm
(familial polyposis; method for prevention of diseases in celiac patients)
IT Mammary gland, disease
(gynecomastia, in men; method for prevention of diseases in celiac patients)
IT Lipoproteins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(low-d., oxidized; method for prevention of diseases in celiac patients)
IT Urinary tract
(lower, disease; method for prevention of diseases in celiac patients)
IT Cardiovascular agents
Celiac disease
Esophagus, neoplasm
Human
Mammary gland, neoplasm
Neoplasm
Prostate gland, neoplasm
Testis, neoplasm
(method for prevention of diseases in celiac patients)
IT **Lignans**
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(plant; method for prevention of diseases in celiac patients)
IT Intestine, neoplasm
(small; method for prevention of diseases in celiac patients)
IT 484-39-9, Liovil 487-36-5, Pinoresinol 518-55-8, Conidendrin
548-29-8, Isolariciresinol **580-72-3, Matairesinol**
7770-78-7, (-)-Arctigenin 11041-15-9, Conidendric acid
20268-71-7, Hydroxymatairesinol 27003-73-2,
Lariciresinol 29388-59-8, Secoisolariciresinol 34444-37-6,
Nortrachelogenin 41607-20-9 53250-61-6, Oxomatairesinol
81623-30-5, Allohydroxymatairesinol 84413-77-4, (+)-Arctigenin
568593-01-1, Picearesinol
RL: **PAC (Pharmacological activity); THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(method for prevention of diseases in celiac patients)
IT **580-72-3, Matairesinol 20268-71-7,**
Hydroxymatairesinol 81623-30-5, Allohydroxymatairesinol
RL: **PAC (Pharmacological activity); THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(method for prevention of diseases in celiac patients)
RN 580-72-3 HCAPLUS
CN 2(3H)-Furanone, dihydro-3,4-bis[(4-hydroxy-3-methoxyphenyl)methyl]-, (3R,4R)- (9CI) (CA INDEX NAME)

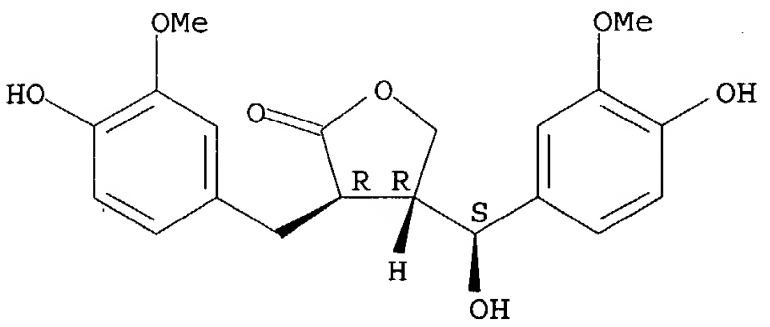
Absolute stereochemistry. Rotation (-).



RN 20268-71-7 HCAPLUS

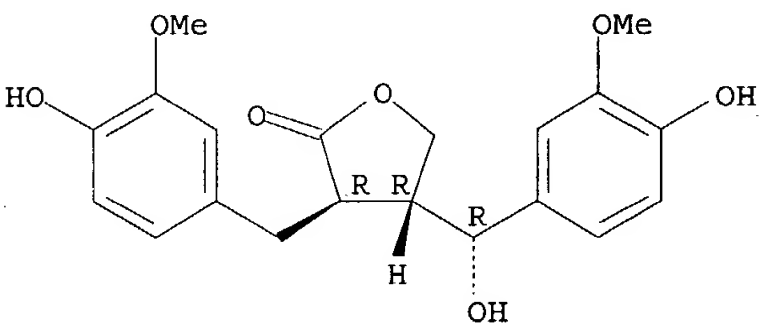
CN 2(3H)-Furanone, dihydro-4-[(S)-hydroxy(4-hydroxy-3-methoxyphenyl)methyl]-3-[(4-hydroxy-3-methoxyphenyl)methyl]-, (3R,4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 81623-30-5 HCAPLUS
CN 2(3H)-Furanone, dihydro-4-[(R)-hydroxy(4-hydroxy-3-methoxyphenyl)methyl]-3-[(4-hydroxy-3-methoxyphenyl)methyl]-, (3R,4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



L83 ANSWER 5 OF 14 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2003:414080 HCAPLUS
DN 138:379228
ED Entered STN: 30 May 2003
TI Method using lignans for inhibiting overactivity of phagocytes or lymphocytes in an individual, and therapeutic use
IN **Ahotupa, Markku; Eriksson, John; Kangas, Lauri ; Unkila, Mikko; Komi, Janne; Perala, Merja; Korte, Helena**
PA Finland
SO U.S. Pat. Appl. Publ., 10 pp.
CODEN: USXXCO
DT Patent
LA English
IC ICM A61K031-365
ICS A61K031-05
NCL 514022000; 514460000; 514731000
CC 1-7 (**Pharmacology**)
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003100514	A1	20030529	US 2001-991971	20011126 <--
WO 2003045376	A1	20030605	WO 2002-FI936	20021121 <--

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD,

RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
PRAI US 2001-991971 A 20011126 <--
CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 2003100514	ICM	A61K031-365
	ICS	A61K031-05
	NCL	514022000; 514460000; 514731000

AB The invention provides a method for inhibiting the overactivity of phagocytes or lymphocytes in an individual by administering to the individual an effective amount of a lignan, wherein (i) the phagocytes are neutrophils and the lignan is **hydroxymatairesinol** or **matairesinol** or mixts. thereof; or (ii) the phagocytes are cells of myeloid origin and the lignan is **enterolactone** or **hydroxymatairesinol** or mixts. thereof; or (iii) the lymphocytes are T-lymphocytes and the lignan is **hydroxymatairesinol**, **matairesinol** or **enterolactone** or mixts. thereof. The invention also provides a method for treating or preventing an acute ischemia-reperfusion injury or a chronic condition, caused by overactivity of phagocytes or lymphocytes in an individual, the method comprising decreasing the activity of phagocytes in an individual by administering to the individual an effective amount of a lignan.

ST lignan phagocyte lymphocye overactivity inhibition therapeutic; neutrophil overactivity inhibition **hydroxymatairesinol matairesinol** therapeutic; myeloid cell overactivity inhibition **enterolactone** **hydroxymatairesinol** therapeutic; T lymphocyte overactivity inhibition **hydroxymatairesinol matairesinol** **enterolactone** therapeutic; ischemia reperfusion injury therapeutic lignan

IT Intestine, disease
(Crohn's; lignans for inhibiting overactivity of phagocytes or lymphocytes, and therapeutic use)

IT Apoptosis
(Fas-induced; lignans for inhibiting overactivity of phagocytes or lymphocytes, and therapeutic use)

IT Tumor necrosis factors
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(TNF-α, release; lignans for inhibiting overactivity of phagocytes or lymphocytes, and therapeutic use)

IT Respiratory distress syndrome
(adult; lignans for inhibiting overactivity of phagocytes or lymphocytes, and therapeutic use)

IT Nervous system, disease
(amyotrophic lateral sclerosis; lignans for inhibiting overactivity of phagocytes or lymphocytes, and therapeutic use)

IT Antiarteriosclerotics
(antiatherosclerotics; lignans for inhibiting overactivity of phagocytes or lymphocytes, and therapeutic use)

IT **Respiration, animal**
(**burst**; lignans for inhibiting overactivity of phagocytes or lymphocytes, and therapeutic use)

IT Drugs
(gastrointestinal; lignans for inhibiting overactivity of phagocytes or lymphocytes, and therapeutic use)

IT Shock (circulatory collapse)
(hemorrhagic; lignans for inhibiting overactivity of phagocytes or lymphocytes, and therapeutic use)

IT Hypercholesterolemia
(hypercholesterolemic atherosclerosis; lignans for inhibiting

overactivity of phagocytes or lymphocytes, and therapeutic use)
IT Atherosclerosis
(hypercholesterolemic; lignans for inhibiting overactivity of phagocytes or lymphocytes, and therapeutic use)
IT Allergy
(hypersensitivity, type I and type II; lignans for inhibiting overactivity of phagocytes or lymphocytes, and therapeutic use)
IT Heart, disease
(infarction; lignans for inhibiting overactivity of phagocytes or lymphocytes, and therapeutic use)
IT Intestine, disease
(inflammatory; lignans for inhibiting overactivity of phagocytes or lymphocytes, and therapeutic use)
IT Reperfusion
(injury; lignans for inhibiting overactivity of phagocytes or lymphocytes, and therapeutic use)
IT Diabetes mellitus
(insulin-dependent; lignans for inhibiting overactivity of phagocytes or lymphocytes, and therapeutic use)
IT Heart, disease
(ischemia; lignans for inhibiting overactivity of phagocytes or lymphocytes, and therapeutic use)
IT AIDS (disease)
Allergy
Allergy inhibitors
Alzheimer's disease
Anti-AIDS agents
Anti-Alzheimer's agents
Anti-inflammatory agents
Anti-ischemic agents
Antiasthmatics
Antidiabetic agents
Antiparkinsonian agents
Antirheumatic agents
Antiviral agents
Asthma
Autoimmune disease
Cardiovascular agents
Cataract
Dermatitis
Human
Human immunodeficiency virus
Immunosuppressants
Inflammation
Ischemia
Lymphocyte
Monocyte
Multiple sclerosis
Neutrophil
Osteoporosis
Parkinson's disease
Phagocyte
Psoriasis
Rheumatoid arthritis
T cell (lymphocyte)
Transplant and Transplantation
Transplant rejection
(lignans for inhibiting overactivity of phagocytes or lymphocytes, and therapeutic use)
IT Fas antigen
Reactive oxygen species
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(lignans for inhibiting overactivity of phagocytes or lymphocytes, and

therapeutic use)

IT **Lignans**
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(lignans for inhibiting overactivity of phagocytes or lymphocytes, and therapeutic use)

IT **Hematopoietic precursor cell**
(**myeloid**, phagocyte of **myeloid** origin; lignans for inhibiting overactivity of phagocytes or lymphocytes, and therapeutic use)

IT Diabetes mellitus
(non-insulin-dependent; lignans for inhibiting overactivity of phagocytes or lymphocytes, and therapeutic use)

IT Shock (circulatory collapse)
(septic; lignans for inhibiting overactivity of phagocytes or lymphocytes, and therapeutic use)

IT Brain, disease
(stroke; lignans for inhibiting overactivity of phagocytes or lymphocytes, and therapeutic use)

IT **7782-44-7D**, Oxygen, reactive species **9003-99-0**, **Myeloperoxidase**
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(lignans for inhibiting overactivity of phagocytes or lymphocytes, and therapeutic use)

IT **580-72-3**, **Matairesinol 20268-71-7**, **Hydroxymatairesinol 78473-71-9**, **Enterolactone**
RL: **PAC (Pharmacological activity)**; **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(lignans for inhibiting overactivity of phagocytes or lymphocytes, and therapeutic use)

IT **7782-44-7D**, Oxygen, reactive species **9003-99-0**, **Myeloperoxidase**
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(lignans for inhibiting overactivity of phagocytes or lymphocytes, and therapeutic use)

RN 7782-44-7 HCAPLUS
CN Oxygen (8CI, 9CI) (CA INDEX NAME)

O=O

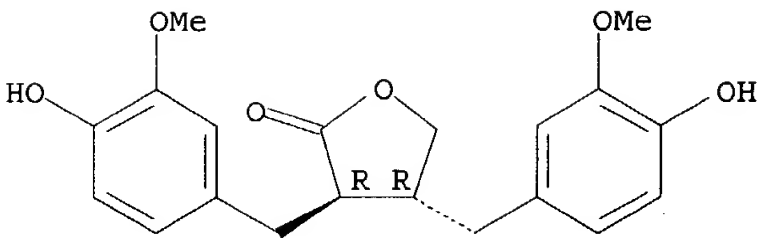
RN 9003-99-0 HCAPLUS
CN Peroxidase (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IT **580-72-3**, **Matairesinol 20268-71-7**, **Hydroxymatairesinol 78473-71-9**, **Enterolactone**
RL: **PAC (Pharmacological activity)**; **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(lignans for inhibiting overactivity of phagocytes or lymphocytes, and therapeutic use)

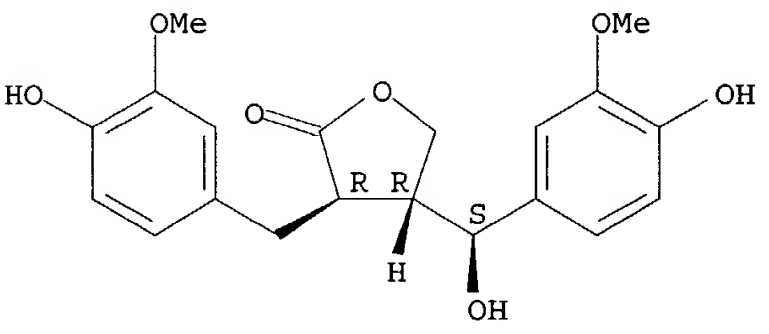
RN 580-72-3 HCAPLUS
CN 2(3H)-Furanone, dihydro-3,4-bis[(4-hydroxy-3-methoxyphenyl)methyl]-, (3R,4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



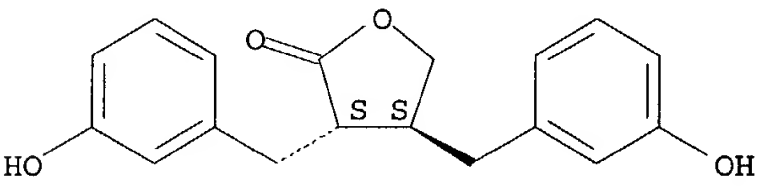
RN 20268-71-7 HCAPLUS
CN 2(3H)-Furanone, dihydro-4-[(S)-hydroxy(4-hydroxy-3-methoxyphenyl)methyl]-3-[(4-hydroxy-3-methoxyphenyl)methyl]-, (3R,4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 78473-71-9 HCAPLUS
CN 2(3H)-Furanone, dihydro-3,4-bis[(3-hydroxyphenyl)methyl]-, (3R,4R)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



L83 ANSWER 6 OF 14 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2002:392225 HCAPLUS
DN 136:380145
ED Entered STN: 24 May 2002
TI Prevention of cancers, non-cancerous hormone-dependent diseases, and cardiovascular diseases by use of **hydroxymatairesinol**, and a pharmaceutical preparation, food additive and food product comprising **hydroxymatairesinol**
IN **Ahotupa, Markku**; Eckerman, Christer; **Kangas, Lauri**; Makela, Sari; Saarinen, Niina; Santti, Risto; Warri, Anni
PA **Hormos Nutraceutical oy Ltd., Finland**
SO U.S. Pat. Appl. Publ., 15 pp., Cont.-in-part of U.S. Ser. No. 829,944.
CODEN: USXXCO
DT Patent
LA English
IC ICM A61K031-70
ICS A61K035-78
NCL 514022000
CC 1-12 (**Pharmacology**)
Section cross-reference(s): 18, **63**
FAN.CNT 2

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

PI	US 2002061854	A1	20020523	US 2001-972850	20011010 <--
	US 6689809	B2	20040210		
	US 6451849	B1	20020917	US 1999-281094	19990330 <--
	US 2001016590	A1	20010823	US 2001-829944	20010411 <--
	US 2004048804	A1	20040311	US 2003-639530	20030813 <--
PRAI	US 1999-281094	A1	19990330 <--		
	US 2001-829944	A2	20010411 <--		
	US 2001-972850	A1	20011010 <--		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 2002061854	ICM	A61K031-70
	ICS	A61K035-78
	NCL	514022000
US 2002061854	ECLA	A23L001/30B; A61K031/365 <--
US 6451849	ECLA	A23L001/30B; A61K031/365 <--
US 2004048804	ECLA	A23L001/30B; A61K031/365 <--

AB The invention discloses methods for prevention of cancers, certain non-cancerous, hormone-dependent diseases, and/or cardiovascular diseases in a person, based on the administration of **hydroxymatairesinol.** The invention also discloses a method for increasing the level of **enterolactone** or another metabolite of **hydroxymatairesinol** in a person's serum, thereby causing prevention of a cancer or a certain non-cancerous, hormone-dependent disease in a person, based on administration of **hydroxymatairesinol.** Furthermore, the invention discloses pharmaceutical prepns., food additives, and food products comprising **hydroxymatairesinol.**

ST **hydroxymatairesinol** pharmaceutical food antitumor cardiovascular drug; hormone dependent disease pharmaceutical **hydroxymatairesinol** ; **enterolactone** stimulation therapeutic metabolite **hydroxymatairesinol**

IT Animal cell line
(JEG-3; **hydroxymatairesinol** for prevention of cancers, non-cancerous hormone-dependent diseases, and cardiovascular diseases, and pharmaceutical and food products)

IT Animal cell line
(MCF-7; **hydroxymatairesinol** for prevention of cancers, non-cancerous hormone-dependent diseases, and cardiovascular diseases, and pharmaceutical and food products)

IT Health food
(and designer foods; **hydroxymatairesinol** for prevention of cancers, non-cancerous hormone-dependent diseases, and cardiovascular diseases, and pharmaceutical and food products)

IT Drug delivery systems
(and nutraceuticals; **hydroxymatairesinol** for prevention of cancers, non-cancerous hormone-dependent diseases, and cardiovascular diseases, and pharmaceutical and food products)

IT Food
(and pharmafoods; **hydroxymatairesinol** for prevention of cancers, non-cancerous hormone-dependent diseases, and cardiovascular diseases, and pharmaceutical and food products)

IT Avena sativa
(bran; **hydroxymatairesinol** for prevention of cancers, non-cancerous hormone-dependent diseases, and cardiovascular diseases, and pharmaceutical and food products)

IT Flaxseed
(flour; **hydroxymatairesinol** for prevention of cancers, non-cancerous hormone-dependent diseases, and cardiovascular diseases, and pharmaceutical and food products)

IT Antioxidants
Daucus carota
Glycine max

Nutrients
Onion (Allium cepa)
Picea abies
Secale cereale
Solanum tuberosum
Wheat bran
(**hydroxymatairesinol** for prevention of cancers, non-cancerous hormone-dependent diseases, and cardiovascular diseases, and pharmaceutical and food products)

IT **Lignans**
RL: BSU (Biological study, unclassified); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**hydroxymatairesinol** for prevention of cancers, non-cancerous hormone-dependent diseases, and cardiovascular diseases, and pharmaceutical and food products)

IT Peroxidation
(lipid; **hydroxymatairesinol** for prevention of cancers, non-cancerous hormone-dependent diseases, and cardiovascular diseases, and pharmaceutical and food products)

IT Lipoproteins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(low-d., oxidation; **hydroxymatairesinol** for prevention of cancers, non-cancerous hormone-dependent diseases, and cardiovascular diseases, and pharmaceutical and food products)

IT Antitumor agents
(mammary gland; **hydroxymatairesinol** for prevention of cancers, non-cancerous hormone-dependent diseases, and cardiovascular diseases, and pharmaceutical and food products)

IT Mammary gland
(neoplasm, inhibitors; **hydroxymatairesinol** for prevention of cancers, non-cancerous hormone-dependent diseases, and cardiovascular diseases, and pharmaceutical and food products)

IT Bran
(oat; **hydroxymatairesinol** for prevention of cancers, non-cancerous hormone-dependent diseases, and cardiovascular diseases, and pharmaceutical and food products)

IT Lipids, biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(peroxidn.; **hydroxymatairesinol** for prevention of cancers, non-cancerous hormone-dependent diseases, and cardiovascular diseases, and pharmaceutical and food products)

IT Peroxides, biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(radicals; **hydroxymatairesinol** for prevention of cancers, non-cancerous hormone-dependent diseases, and cardiovascular diseases, and pharmaceutical and food products)

IT Wood
(soft; **hydroxymatairesinol** for prevention of cancers, non-cancerous hormone-dependent diseases, and cardiovascular diseases, and pharmaceutical and food products)

IT Diet
(supplements; **hydroxymatairesinol** for prevention of cancers, non-cancerous hormone-dependent diseases, and cardiovascular diseases, and pharmaceutical and food products)

IT 518-55-8, α-Conidendrin 9039-48-9, Aromatase 11041-15-9, Conidendric acid 11062-77-4, Superoxide
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(**hydroxymatairesinol** for prevention of cancers, non-cancerous hormone-dependent diseases, and cardiovascular diseases, and pharmaceutical and food products)

IT **78473-71-9, Enterolactone** 80226-00-2, Enterodiol
RL: BSU (Biological study, unclassified); **PAC (Pharmacological activity)**; BIOL (Biological study)

(**hydroxymatairesinol** for prevention of cancers, non-cancerous hormone-dependent diseases, and cardiovascular diseases, and pharmaceutical and food products)

IT **20268-71-7**, **Hydroxymatairesinol**
RL: NPO (Natural product occurrence); **PAC (Pharmacological activity)**; **THU (Therapeutic use)**; BIOL (Biological study); OCCU (Occurrence); USES (Uses)
(**hydroxymatairesinol** for prevention of cancers, non-cancerous hormone-dependent diseases, and cardiovascular diseases, and pharmaceutical and food products)

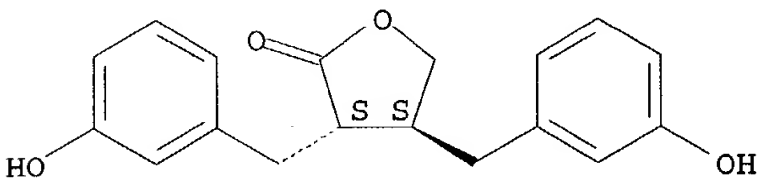
IT 117-39-5, Quercetin 128-37-0, BHT, biological studies 491-54-3, Kaempferide 520-18-3, Kaempferol 25013-16-5, BHA 53188-07-1, Trolox 380448-80-6
RL: PAC (Pharmacological activity); BIOL (Biological study)
(**hydroxymatairesinol** for prevention of cancers, non-cancerous hormone-dependent diseases, and cardiovascular diseases, and pharmaceutical and food products)

IT **20268-71-7D**, **Hydroxymatairesinol**, (stereo)isomers
RL: **PAC (Pharmacological activity)**; **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(**hydroxymatairesinol** for prevention of cancers, non-cancerous hormone-dependent diseases, and cardiovascular diseases, and pharmaceutical and food products)

IT **78473-71-9**, **Enterolactone**
RL: BSU (Biological study, unclassified); **PAC (Pharmacological activity)**; BIOL (Biological study)
(**hydroxymatairesinol** for prevention of cancers, non-cancerous hormone-dependent diseases, and cardiovascular diseases, and pharmaceutical and food products)

RN 78473-71-9 HCAPLUS
CN 2(3H)-Furanone, dihydro-3,4-bis[(3-hydroxyphenyl)methyl]-, (3R,4R)-rel- (9CI) (CA INDEX NAME)

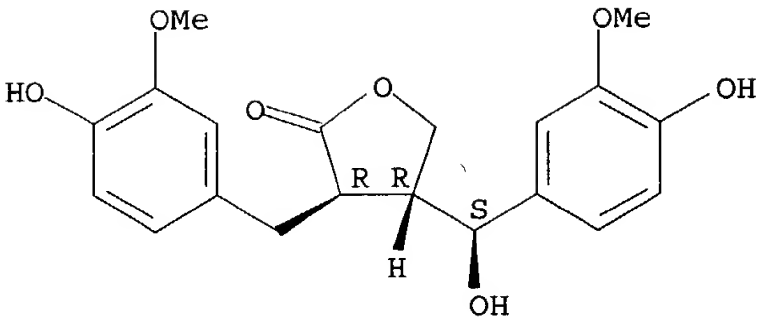
Relative stereochemistry.



IT **20268-71-7**, **Hydroxymatairesinol**
RL: NPO (Natural product occurrence); **PAC (Pharmacological activity)**; **THU (Therapeutic use)**; BIOL (Biological study); OCCU (Occurrence); USES (Uses)
(**hydroxymatairesinol** for prevention of cancers, non-cancerous hormone-dependent diseases, and cardiovascular diseases, and pharmaceutical and food products)

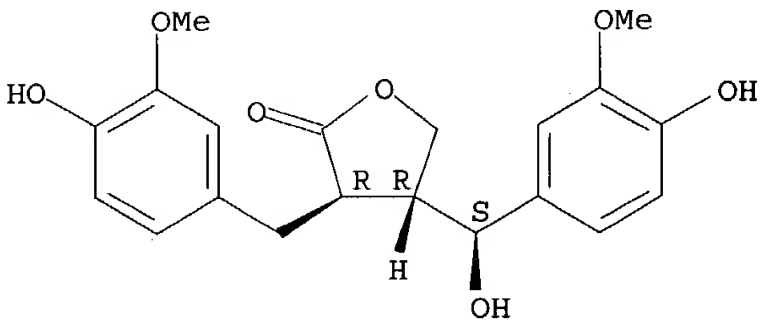
RN 20268-71-7 HCAPLUS
CN 2(3H)-Furanone, dihydro-4-[(S)-hydroxy(4-hydroxy-3-methoxyphenyl)methyl]-3-[(4-hydroxy-3-methoxyphenyl)methyl]-, (3R,4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

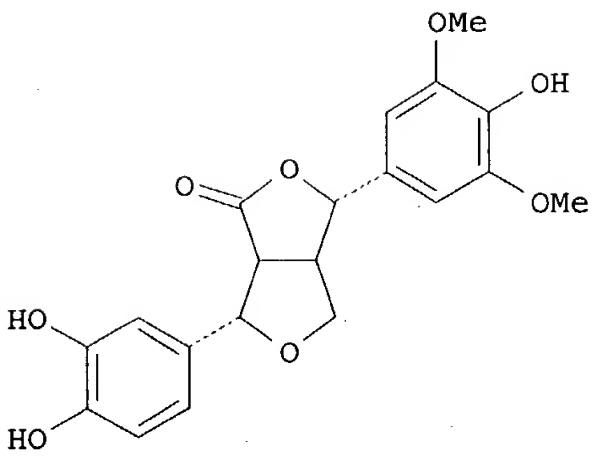


IT **20268-71-7D, Hydroxymatairesinol**, (stereo)isomers
RL: **PAC (Pharmacological activity)**; **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(**hydroxymatairesinol** for prevention of cancers, non-cancerous hormone-dependent diseases, and cardiovascular diseases, and pharmaceutical and food products)
RN 20268-71-7 HCAPLUS
CN 2(3H)-Furanone, dihydro-4-[(S)-hydroxy(4-hydroxy-3-methoxyphenyl)methyl]-3-[(4-hydroxy-3-methoxyphenyl)methyl]-, (3R,4R)- (9CI) (CA INDEX NAME)

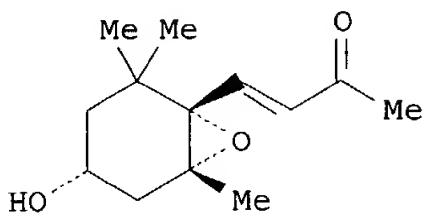
Absolute stereochemistry. Rotation (-).



L83 ANSWER 7 OF 14 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2001:922174 HCAPLUS
DN 136:291701
ED Entered STN: 21 Dec 2001
TI Immunosuppressive constituents from Saussurea medusa
AU Duan, Hongquan; Takaishi, Yoshihisa; Momota, Hiroshi; Ohmoto, Yasukazu; Taki, Takao
CS Faculty of Pharmaceutical Sciences, University of Tokushima, Tokushima, 770-8505, Japan
SO Phytochemistry (2002), 59(1), 85-90
CODEN: PYTCAS; ISSN: 0031-9422
PB Elsevier Science Ltd.
DT Journal
LA English
CC 11-1 (Plant Biochemistry)
Section cross-reference(s): 26
GI



I



II

AB The methanol extract of Saussurea medusa Maxim afforded two lignans: (e.g. I) and 1-hydroxy-2,4-guaicyl-3,7-dioxabicyclo[3.3.0]octane; two chlorophyll derivs.: 13-epi-phaeophorbide-a and 13-epi-phaeophorbide-a Me ester; one megastigmane derivative: 3-hydroxy-5,6-epoxy-7-megastigmen-9-one (II), along with 19 known compds. Their structures were established on the basis of spectroscopic studies.

ST lignan chlorophyll megastigmane deriv Saussurea immunosuppressant

IT Chlorophylls, biological studies
RL: BSU (Biological study, unclassified); NPO (Natural product occurrence); PAC (Pharmacological activity); PRP (Properties); PUR (Purification or recovery); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)
(derivs.; immunosuppressive constituents from Saussurea medusa)

IT **Immunosuppressants**
Saussurea medusa
(immunosuppressive constituents from Saussurea medusa)

IT **Lignans**
RL: BSU (Biological study, unclassified); NPO (Natural product occurrence); PAC (Pharmacological activity); PRP (Properties); PUR (Purification or recovery); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)
(immunosuppressive constituents from Saussurea medusa)

IT Cytokines
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(inhibition effect on cytokinins of immunosuppressive constituents from Saussurea medusa)

IT New natural products
(lignans, chlorophyll derivs. and megastigmane derivative from Saussurea medusa)

IT Molecular structure, natural product
(of lignans, chlorophyll derivs. and megastigmane derivative from Saussurea medusa)

IT 64070-09-3P, 13-epi-Phaeophorbide-a methyl ester 78964-31-5P, 13-epi-Phaeophorbide-a 175418-93-6P 408513-60-0P 408513-62-2P, 1α-Hydroxy-2α,4α-guaicyl-3,7-dioxabicyclo[3.3.0]octane
RL: BSU (Biological study, unclassified); NPO (Natural product occurrence); PAC (Pharmacological activity); PRP (Properties); PUR (Purification or recovery); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)
(immunosuppressive constituents from Saussurea medusa)

IT 487-36-5, (+)-Pinoresinol **580-72-3, Matairesinol**
603-17-8, Pheophytin a 3147-18-0, Pheophytin b 5594-30-9, Methyl phaeophoride a 5989-02-6, Loliolide 6216-81-5, Lirioresinol B 7770-78-7, Arctigenin 15664-29-6, Phaeophorbide a 20240-17-9 20362-31-6, Arctiin 24404-50-0, Epipinoresinol 27003-73-2, Lariciresinol 29388-59-8, Secoisolariciresinol 40957-99-1, (+)-Medioresinol 79733-01-0 79733-03-2 99305-01-8 126882-59-5, (-)-Berchemol
RL: BSU (Biological study, unclassified); **PAC (Pharmacological activity)**; BIOL (Biological study)
(immunosuppressive constituents from Saussurea medusa)
IT 408512-16-3P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and properties of)
RE.CNT 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Briggs, L; Journal of Chemical Society (C) 1968, P3042 HCAPLUS
(2) Chan, Y; Chemical and Pharmaceutical Bulletin 1999, V47, P887 HCAPLUS
(3) Duan, H; Phytochemistry 2000, V53, P805 HCAPLUS
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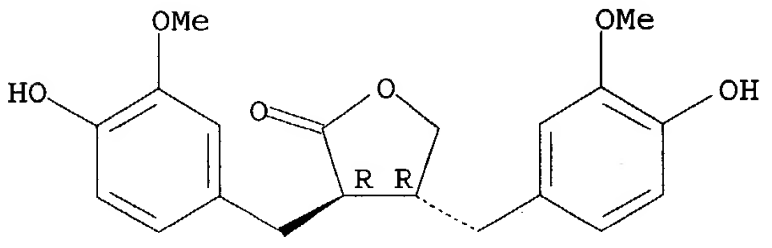
(15) Wray, V; Tetrahedron 1979, V35, P2275 HCAPLUS
(16) Yang, R; Natural Medicines 1997, V51, P134
IT **580-72-3, Matairesinol**
RL: BSU (Biological study, unclassified); **PAC (Pharmacological activity)**; BIOL (Biological study)
(immunosuppressive constituents from Saussurea medusa)
RN 580-72-3 HCAPLUS
CN 2(3H)-Furanone, dihydro-3,4-bis[(4-hydroxy-3-methoxyphenyl)methyl]-, (3R,4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



L83 ANSWER 8 OF 14 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2001:573545 HCAPLUS
DN 135:132430
ED Entered STN: 08 Aug 2001
TI Decreasing the intracellular level of β-catenin by administering **hydroxymatairesinol**, and therapeutic and diagnostic methods
IN Mutanen, Marja
PA **Hormos Nutraceutical Oy Ltd., Finland**
SO U.S., 7 pp.
CODEN: USXXAM

DT Patent
LA English
IC ICM A61K031-00
NCL 514461000
CC 1-6 (**Pharmacology**)
Section cross-reference(s): 9
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6271257	B1	20010807	US 2000-550602	20000417 <--
	WO 2001078720	A1	20011025	WO 2001-FI110	20010208 <--
	WO 2001078720	C1	20021212		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	EP 1299097	A1	20030409	EP 2001-905844	20010208 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	JP 2003530436	T2	20031014	JP 2001-576020	20010208 <--
PRAI	US 2000-550602	A	20000417 <--		
	WO 2001-FI110	W	20010208 <--		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 6271257	ICM	A61K031-00
	NCL	514461000

AB A method is provided for decreasing the intracellular, especially nuclear, level of β-catenin in an individual. Also provided is a method for the prevention or treatment of a disease or condition in an individual, wherein the disease or condition is related to a mutant APC gene or to an elevated level of intracellular β-catenin. Specifically provided is a method for the treatment of familial adenomatous polyposis. Furthermore, the invention provides methods for screening a subject to determine if said subject is a carrier of a mutant APC gene, as well as methods for diagnosing an individual's predisposition for a disease or condition in an individual, the disease or condition being related to a mutant APC gene or to an elevated level of intracellular β-catenin.

ST **hydroxymatairesinol** therapeutic beta catenin redn; APC gene disease diagnosis therapy **hydroxymatairesinol**; familial adenomatous polyposis treatment **hydroxymatairesinol**

IT Gene, animal
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(APC; Decreasing the intracellular level of β-catenin by administering **hydroxymatairesinol**, and therapeutic and diagnostic methods)

IT Antitumor agents
Mutation
Rye
(Decreasing the intracellular level of β-catenin by administering **hydroxymatairesinol**, and therapeutic and diagnostic methods)

IT Intestine, neoplasm
(adenoma; Decreasing the intracellular level of β-catenin by administering **hydroxymatairesinol**, and therapeutic and diagnostic methods)

IT Intestine, neoplasm
(familial polyposis; Decreasing the intracellular level of

β-catenin by administering **hydroxymatairesinol**, and therapeutic and diagnostic methods)

IT Catenins
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(β-; Decreasing the intracellular level of β-catenin by administering **hydroxymatairesinol**, and therapeutic and diagnostic methods)

IT **20268-71-7**, **Hydroxymatairesinol**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(Decreasing the intracellular level of β-catenin by administering **hydroxymatairesinol**, and therapeutic and diagnostic methods)

RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

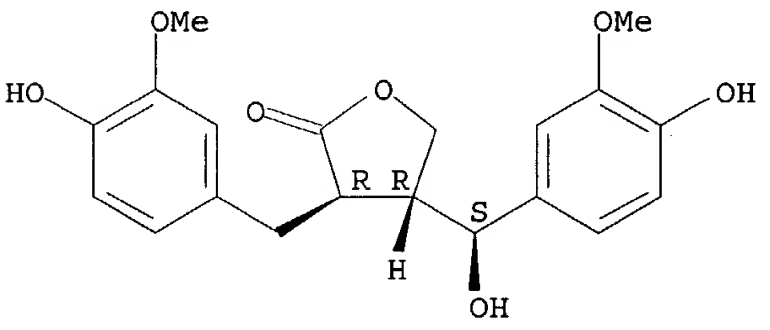
(1) Anon; WO 9213103 1992 HCAPLUS
(2) Barker; US 5998600 1999 HCAPLUS
(3) Bras; European Journal of Cancer Prevention 1999, V8(4), P305 MEDLINE
(4) Herter; Journal of Cancer Research and Clinical Oncology 1999, V125(5) HCAPLUS
(5) Kinzler; US 5709998 1998 HCAPLUS
(6) Mahmoud; Proceeding of the American Association for Cancer Research Annual Meeting 1999, V40, P530
(7) Saarinen; Nutrition and Cancer 2000, V36(2) HCAPLUS

IT **20268-71-7**, **Hydroxymatairesinol**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(Decreasing the intracellular level of β-catenin by administering **hydroxymatairesinol**, and therapeutic and diagnostic methods)

RN 20268-71-7 HCAPLUS

CN 2(3H)-Furanone, dihydro-4-[(S)-hydroxy(4-hydroxy-3-methoxyphenyl)methyl]-3-[(4-hydroxy-3-methoxyphenyl)methyl]-, (3R,4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-):



L83 ANSWER 9 OF 14 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2001:450166 HCAPLUS

DN 135:189741

ED Entered STN: 22 Jun 2001

TI Anti-AIDS Agents. 46. Anti-HIV Activity of Harman, an Anti-HIV Principle from Symplocos setchuensis, and Its Derivatives

AU Ishida, Junko; Wang, Hui-Kang; Oyama, Masayoshi; Cosentino, Mark L.; Hu, Chang-Qi; Lee, Kuo-Hsiung

CS Natural Products Laboratory School of Pharmacy, University of North Carolina, Chapel Hill, NC, 27599-7360, USA

SO Journal of Natural Products (**2001**), 64(7), 958-960
CODEN: JNPRDF; ISSN: 0163-3864

PB American Chemical Society

DT Journal

LA English
CC 1-3 (**Pharmacology**)
Section cross-reference(s): **63**
AB **Matairesinol** and harman, identified from Symplocos setchuensis, were found to inhibit HIV replication in H9 lymphocyte cells. Anti-HIV evaluation of 28 derivs. of harman revealed that compound 19 showed potent activity with EC50 and therapeutic index values of 0.037 μM and 210, resp.
ST antiHIV Symplocos harman deriv SAR
IT **Lymphocyte**
(H9; anti-HIV principle from Symplocos setchuensis, and its derivs.)
IT Anti-AIDS agents
Structure-activity relationship
Symplocos
(anti-HIV principle from Symplocos setchuensis, and its derivs.)
IT 244-63-3, 9H-Pyrido[3,4-b]indole 442-51-3, Harmine 486-84-0, Harman 487-03-6 525-41-7 6028-07-5 6415-92-5 6519-18-2 10593-56-3, 9H-Pyrido[3,4-b]indole, 7-ethoxy-1-methyl- 17019-08-8 24415-61-0 85645-27-8 143502-37-8 186790-81-8 199530-62-6 199530-63-7 200431-10-3 241809-11-0 257938-75-3 257938-76-4 257938-77-5 257938-78-6 257938-79-7 257938-81-1 257938-82-2 257938-85-5 257938-86-6 356790-36-8 356790-37-9
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(anti-HIV principle from Symplocos setchuensis, and its derivs.)
RE.CNT 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Abe, F; Chem Pharm Bull 1986, V34, P4340 HCAPLUS
(2) Bodesheim, U; Pharmazie 1997, V52, P386 HCAPLUS
(3) Eich, E; J Med Chem 1996, V39, P86 HCAPLUS
(4) Eich, E; Planta Med 1990, V56, P506
(5) Ishida, J; Bioorg Med Chem Lett 1999, V9, P3319 HCAPLUS
(6) Kashiwada, Y; J Nat Prod 1998, V61, P1090 HCAPLUS
(7) Miyazawa, M; Phytochemistry 1992, V31, P3666 HCAPLUS
(8) Okuyama, E; Chem Pharm Bull 1995, V43, P2200 HCAPLUS
(9) Rahman, M; Phytochemistry 1990, V29, P1971 HCAPLUS
(10) Spath, E; Monatsh 1920, V41, P401 HCAPLUS
(11) Xu, Z; J Nat Prod 2000, V63, P1712 HCAPLUS

L83 ANSWER 10 OF 14 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2000:725669 HCAPLUS
DN 133:286508
ED Entered STN: 13 Oct 2000
TI **Hydroxymatairesinol** preparations in cancer prevention
IN **Ahotupa, Markku**; Eckerman, Christer; **Kangas, Lauri**; Makela, Sari; Saarinen, Niina; Santti, Risto; Warri, Anni
PA **Hormos Nutraceutical Oy Ltd., Finland**
SO PCT Int. Appl., 43 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM C07K307-32
ICS A61K031-00; A23L001-30
CC 63-6 (**Pharmaceuticals**)
Section cross-reference(s): **1**, 17
FAN.CNT 2

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2000059946	A1	20001012	WO 2000-FI181	20000309 <--

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV,

MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG,
SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW,
AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,
DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,
CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

US 6451849	B1	20020917	US 1999-281094	19990330	<--
EP 1165537	A1	20020102	EP 2000-909388	20000309	<--
EP 1165537	B1	20030122			

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
IE, SI, LT, LV, FI, RO

BR 2000007187	A	20020219	BR 2000-7187	20000309	<--
JP 2002541158	T2	20021203	JP 2000-609455	20000309	<--
EE 200100507	A	20021216	EE 2001-507	20000309	<--
AT 231500	E	20030215	AT 2000-909388	20000309	<--
ES 2189738	T3	20030716	ES 2000-909388	20000309	<--
AU 767691	B2	20031120	AU 2000-31692	20000309	<--
NZ 512099	A	20040130	NZ 2000-512099	20000309	<--
ZA 2001004440	A	20020730	ZA 2001-4440	20010530	<--
BG 105856	A	20020430	BG 2001-105856	20010830	<--
NO 2001004639	A	20010925	NO 2001-4639	20010925	<--
PRAI US 1999-281094	A	19990330	<--		
WO 2000-FI181	W	20000309	<--		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2000059946	ICM	C07K307-32
	ICS	A61K031-00; A23L001-30
US 6451849	ECLA	A23L001/30B; A61K031/365 <--

AB This invention relates to methods for prevention of cancers, certain non-cancer, hormone dependent diseases and/or cardiovascular diseases in a person, based on administering of **hydroxymatairesinol** to said person. The invention also concerns a method for increasing the level of **enterolactone** or another metabolite of **hydroxymatairesinol** in a person's serum thereby causing prevention of a cancer or a certain non-cancer, hormone dependent disease in a person, based on administering of **hydroxymatairesinol** to said person. Furthermore, this invention relates to pharmaceutical prepns., food additives and food products comprising **hydroxymatairesinol.**

ST **hydroxymatairesinol** antitumor hormone disease gynecomastia

IT **Lignans**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(antioxidant activity of; **hydroxymatairesinol** prepns. in cancer prevention)

IT Prostate gland
(benign hyperplasia; **hydroxymatairesinol** prepns. in cancer prevention)

IT Bakery products
(biscuits; **hydroxymatairesinol** prepns. in cancer prevention)

IT Bakery products
(cakes; **hydroxymatairesinol** prepns. in cancer prevention)

IT Drug delivery systems
(carriers; **hydroxymatairesinol** prepns. in cancer prevention)

IT Intestine, neoplasm
Intestine, neoplasm
(colon, inhibitors; **hydroxymatairesinol** prepns. in cancer prevention)

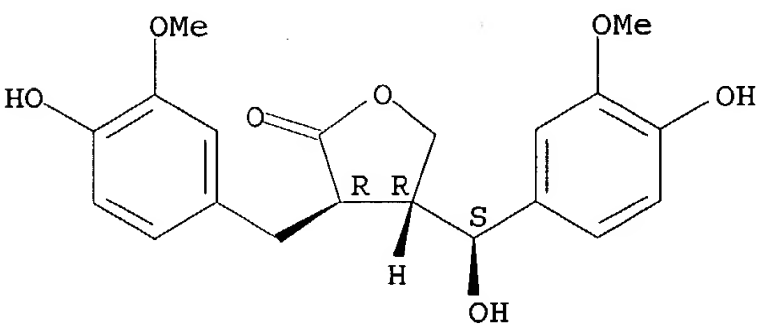
IT Antitumor agents
(colon; **hydroxymatairesinol** prepns. in cancer prevention)

IT Cardiovascular system
(disease; **hydroxymatairesinol** prepns. in cancer prevention)

IT Hormones, animal, biological studies
RL: ADV (Adverse effect, including toxicity); BSU (Biological study, unclassified); BIOL (Biological study)
(diseases dependent on; **hydroxymatairesinol** prepns. in cancer prevention)
IT Urethra
(dyssynergia; **hydroxymatairesinol** prepns. in cancer prevention)
IT Mammary gland
(gynecomastia; **hydroxymatairesinol** prepns. in cancer prevention)
IT Disease, animal
(hormone-dependent; **hydroxymatairesinol** prepns. in cancer prevention)
IT Antioxidants
Antitumor agents
Bread
Butter
Candy
Cardiovascular agents
Confectionery
Food
Food additives
Margarine
(**hydroxymatairesinol** prepns. in cancer prevention)
IT Bladder
(instability; **hydroxymatairesinol** prepns. in cancer prevention)
IT Spruce (Picea abies)
(lignans of; **hydroxymatairesinol** prepns. in cancer prevention)
IT Peroxidation
(lipid; **hydroxymatairesinol** prepns. in cancer prevention)
IT Lipoproteins
RL: ADV (Adverse effect, including toxicity); FMU (Formation, unclassified); BIOL (Biological study); FORM (Formation, nonpreparative)
(low-d., oxidation products; **hydroxymatairesinol** prepns. in cancer prevention)
IT Urinary tract
(lower, disease; **hydroxymatairesinol** prepns. in cancer prevention)
IT Antitumor agents
(mammary gland; **hydroxymatairesinol** prepns. in cancer prevention)
IT Breakfast cereal
(muesli; **hydroxymatairesinol** prepns. in cancer prevention)
IT Mammary gland
Mammary gland
Prostate gland
Prostate gland
(neoplasm, inhibitors; **hydroxymatairesinol** prepns. in cancer prevention)
IT Bladder
(obstruction; **hydroxymatairesinol** prepns. in cancer prevention)
IT Blood serum
(oxidized LDL of; **hydroxymatairesinol** prepns. in cancer prevention)
IT Pigments, nonbiological
(oxidation of; **hydroxymatairesinol** prepns. in cancer prevention)
IT Vitamins
RL: RCT (Reactant); RACT (Reactant or reagent)
(oxidation of; **hydroxymatairesinol** prepns. in cancer prevention)

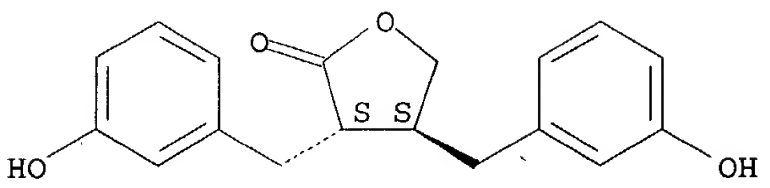
IT Lipids, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(peroxidn.; **hydroxymatairesinol** prepns. in cancer prevention)
IT Antitumor agents
(prostate gland; **hydroxymatairesinol** prepns. in cancer prevention)
IT Milk preparations
(yogurt; **hydroxymatairesinol** prepns. in cancer prevention)
IT **20268-71-7**, **Hydroxymatairesinol**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); **THU (Therapeutic use)**; BIOL (Biological study); PROC (Process); USES (Uses)
(**hydroxymatairesinol** prepns. in cancer prevention)
IT **78473-71-9**, **Enterolactone**
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); MFM (Metabolic formation); **THU (Therapeutic use)**; BIOL (Biological study); FORM (Formation, nonpreparative); OCCU (Occurrence); USES (Uses)
(**hydroxymatairesinol** prepns. in cancer prevention)
IT 9039-48-9, Aromatase
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(inhibitors; **hydroxymatairesinol** prepns. in cancer prevention)
RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Anon; JP A22000129256 2000 HCAPLUS
(2) Jorma, M; Models in Chemistry 1998, V135(4), P583
(3) Joshua, D; Plant Polyphenols 2: Chemistry, Biology, Pharmacology, Ecology, "Plant ligans and Health:Cancer chemoprevention and biotechnological opportunities" 1999, P675
(4) Kanoldt Arzneimittel Gmbh; WO 9714670 A1 1997 HCAPLUS
IT **20268-71-7**, **Hydroxymatairesinol**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); **THU (Therapeutic use)**; BIOL (Biological study); PROC (Process); USES (Uses)
(**hydroxymatairesinol** prepns. in cancer prevention)
RN 20268-71-7 HCAPLUS
CN 2(3H)-Furanone, dihydro-4-[(S)-hydroxy(4-hydroxy-3-methoxyphenyl)methyl]-3-[(4-hydroxy-3-methoxyphenyl)methyl]-, (3R,4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



IT **78473-71-9**, **Enterolactone**
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); MFM (Metabolic formation); **THU (Therapeutic use)**; BIOL (Biological study); FORM (Formation, nonpreparative); OCCU (Occurrence); USES (Uses)
(**hydroxymatairesinol** prepns. in cancer prevention)
RN 78473-71-9 HCAPLUS
CN 2(3H)-Furanone, dihydro-3,4-bis[(3-hydroxyphenyl)methyl]-, (3R,4R)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



L83 ANSWER 11 OF 14 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2000:517175 HCAPLUS
DN 133:344260
ED Entered STN: 31 Jul 2000
TI **Hydroxymatairesinol**, a novel **enterolactone** precursor with antitumor properties from a coniferous tree (Picea abies)
AU Saarinen, N. M.; Warri, A.; Makela, S. I.; Eckerman, C.; Reunanen, M.; **Ahotupa, M.**; Salmi, S. M.; Franke, A. A.; **Kangas, L.**; Santti, R.
CS Department of Anatomy and Medical Research Laboratory, University of Turku, Turku, FIN-20520, Finland
SO Nutrition and Cancer (**2000**), 36(2), 207-214
CODEN: NUCADQ; ISSN: 0163-5581
PB Lawrence Erlbaum Associates, Inc.
DT Journal
LA English
CC 1-6 (**Pharmacology**)
Section cross-reference(s): 11
AB The plant lignan **hydroxymatairesinol** (HMR) was extracted from Norway spruce (P. abies) and its metabolism and biol. actions were studied in animals. HMR, the most abundant single component of spruce lignans, was metabolized to **enterolactone** (ENL) as the major metabolite in rats after oral administration. The amts. of urinary ENL increased with the dose of HMR (3-50 mg/kg), and only minor amts. of unmetabolized HMR isomers and other lignans were found in urine. HMR (15 mg/kg/day for 51 days, orally) decreased the number of growing tumors and increased the proportion of regressing and stabilized tumors in the rat dimethylbenz[a]anthracene-induced mammary tumor model. HMR (50 mg/kg) had no estrogenic or antiestrogenic activity in the uterine growth test in immature rats. HMR also produced no antiandrogenic responses in the growth of accessory sex glands in adult male rats. Neither ENL nor enterodiol had estrogenic or antiestrogenic activity via the classical α- or β-type estrogen receptor-mediated pathway in vitro at <1.0 μM. HMR was an effective antioxidant in vitro.
ST **hydroxymatairesinol enterolactone** antitumor antioxidant Picea abies
IT Androgens
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(antiandrogens; antitumor, antioxidant, and other properties of **hydroxymatairesinol**, a novel **enterolactone** precursor, from Picea abies)
IT Estrogens
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(antiestrogens; antitumor, antioxidant, and other properties of **hydroxymatairesinol**, a novel **enterolactone** precursor, from Picea abies)
IT Antioxidants
Antitumor agents

Spruce (Picea abies)
(antitumor, antioxidant, and other properties of **hydroxymatairesinol**, a novel **enterolactone** precursor, from Picea abies)

IT **Lignans**
RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); USES (Uses)
(antitumor, antioxidant, and other properties of **hydroxymatairesinol**, a novel **enterolactone** precursor, from Picea abies)

IT Estrogens
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(antitumor, antioxidant, and other properties of **hydroxymatairesinol**, a novel **enterolactone** precursor, from Picea abies)

IT Estrogen receptors
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(**hydroxymatairesinol** from Picea abies effect on)

IT 80226-00-2, Enterodiol
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative); PROC (Process)
(antitumor, antioxidant, and other properties of **hydroxymatairesinol** and its metabolite enterodiol, from Picea abies)

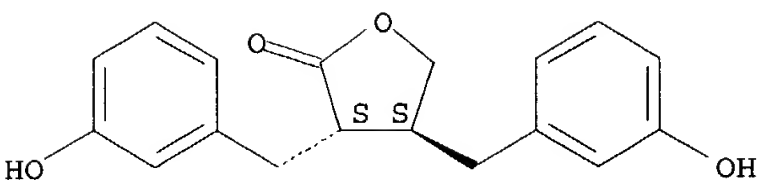
IT **78473-71-9, Enterolactone**
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative); PROC (Process)
(antitumor, antioxidant, and other properties of **hydroxymatairesinol** and its metabolite **enterolactone**, from Picea abies)

IT **20268-71-7P, Hydroxymatairesinol**
RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); PUR (Purification or recovery); **THU (Therapeutic use)**; BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); USES (Uses)
(antitumor, antioxidant, and other properties of **hydroxymatairesinol**, a novel **enterolactone** precursor, from Picea abies)

IT **78473-71-9, Enterolactone**
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative); PROC (Process)
(antitumor, antioxidant, and other properties of **hydroxymatairesinol** and its metabolite **enterolactone**, from Picea abies)

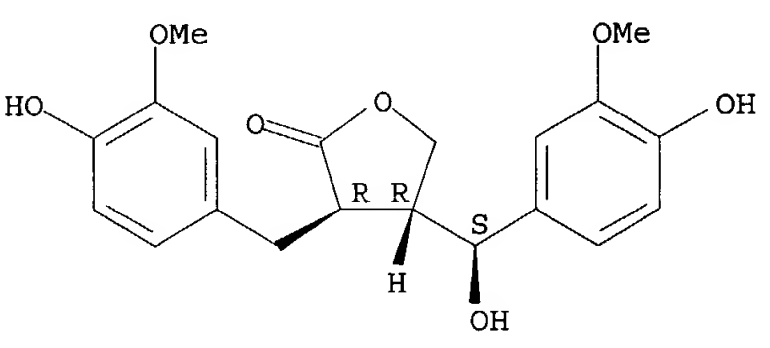
RN 78473-71-9 HCAPLUS
CN 2(3H)-Furanone, dihydro-3,4-bis[(3-hydroxyphenyl)methyl]-, (3R,4R)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



IT **20268-71-7P, Hydroxymatairesinol**
RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); PUR (Purification or recovery); **THU (Therapeutic use)**; BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); USES (Uses)
(antitumor, antioxidant, and other properties of **hydroxymatairesinol**, a novel **enterolactone** precursor, from Picea abies)
RN 20268-71-7 HCAPLUS
CN 2(3H)-Furanone, dihydro-4-[(S)-hydroxy(4-hydroxy-3-methoxyphenyl)methyl]-3-[(4-hydroxy-3-methoxyphenyl)methyl]-, (3R,4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



L83 ANSWER 12 OF 14 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1992:649878 HCAPLUS
DN 117:249878
ED Entered STN: 26 Dec 1992
TI Effect of mammalian lignans of fMLP-induced oxidative bursts in human polymorphonuclear leukocytes
AU Morikawa, Masako; Fukuchi, Kazunori; Inoue, Michiko; Tsuboi, Minoru
CS Dep. Pharmacol., Tokyo Coll. Pharm., Hachioji, 192-03, Japan
SO Journal of Pharmacy and Pharmacology (**1992**), 44(10), 859-61
CODEN: JPPMAB; ISSN: 0022-3573
DT Journal
LA English
CC 15-10 (**Immunochemistry**)
AB The effects of the mammalian lignans, **enterolactone**, prestegane B and 2,3-dibenzylbutane-1,4-diol (DBB) were examined on superoxide production and luminol-dependent chemiluminescence (LCL) response in human polymorphonuclear leukocytes (PMNs). The three lignans had no direct effect on the responses of human PMNs. DBB and prestegane B enhanced the superoxide production and LCL response induced by formylmethionyl-leucyl-phenyl-alanine (fMLP), but **enterolactone** inhibited fMLP-induced effects. The effects of DBB were stronger than those of prestegane B and the effects of DBB were inhibited by bromophenacyl bromide, mepacrine, N-(6-aminophenyl)-5-chloro-1-naphthalene sulfonamide and trifluoroperazine, but not by gossypol, nordihydroguaretic acid, indomethacin, staurosporine, 1-(5-isoquinolinesulfphonyl)-2-methylpiperazine dihydrochloride or (R,S)-2-methoxy-3-(octadecyl-carbamoyloxy)-propyl-2-(2-thiazolio)-ethylphosphate. These results suggest that DBB primes the responses of human PMNs, and the priming effect is caused by the activation of phospholipase A2- and

Ca2+-calmodulin-pathways, but not by the activation of lipoxygenase, cyclo-oxygenase and protein kinase C or by the release of platelet activating factor.

ST mammal lignan formyl peptide neutrophil respiration

IT **Animal respiration**
(**burst**, formyl peptide-induced, of human polymorphonuclear leukocytes, lignans effect on)

IT Hypohalous acids
RL: FORM (Formation, nonpreparative)
(formation of, formyl peptide-induced, in human polymorphonuclear leukocyte respiratory burst, lignans effect on)

IT **Lignans**
RL: BIOL (Biological study)
(formyl peptide-induced oxidative burst by human polymorphonuclear leukocytes response to)

IT Calmodulins
RL: BIOL (Biological study)
(in lignan modulation of formyl peptide-induced human polymorphonuclear leukocyte oxidative burst)

IT **Neutrophil**
(respiratory burst of human, formyl peptide-induced, lignans effect on)

IT Leukocyte
(polymorphonuclear, respiratory burst of human, formyl peptide-induced, lignans effect on)

IT 11062-77-4, Superoxide
RL: FORM (Formation, nonpreparative)
(formation of, formyl peptide-induced, in human polymorphonuclear leukocyte respiratory burst, lignans effect on)

IT **78473-71-9, Enterolactone** 93376-04-6, Prestegane B
101787-58-0, 2,3-Dibenzylbutane-1,4-diol
RL: BIOL (Biological study)
(formyl peptide-induced oxidative burst by human polymorphonuclear leukocytes response to)

IT 9001-84-7, Phospholipase A2
RL: BIOL (Biological study)
(in lignan modulation of formyl peptide-induced human polymorphonuclear leukocyte oxidative burst)

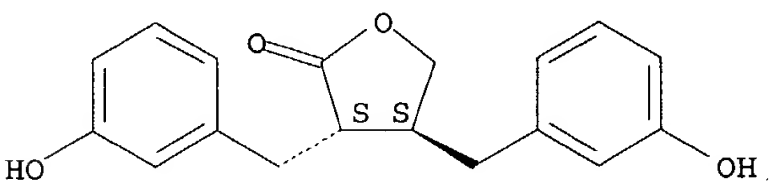
IT 59880-97-6
RL: BIOL (Biological study)
(oxidative burst induction by, in human polymorphonuclear leukocytes, lignans effect on)

IT **78473-71-9, Enterolactone**
RL: BIOL (Biological study)
(formyl peptide-induced oxidative burst by human polymorphonuclear leukocytes response to)

RN 78473-71-9 HCAPLUS

CN 2(3H)-Furanone, dihydro-3,4-bis[(3-hydroxyphenyl)methyl]-, (3R,4R)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



L83 ANSWER 13 OF 14 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 1991:23554 HCAPLUS

DN 114:23554

ED Entered STN: 26 Jan 1991

TI Preparation of dibenzylbutanediol and dibenzyltetrahydrofuran derivatives as immunosuppressants
IN Oka, Kitaro; Hirano, Toshihiko; Naito, Takashi; Hosaka, Kunio
PA Tsumura and Co., Japan
SO Jpn. Kokai Tokkyo Koho, 21 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM A61K031-05
ICS A61K031-075; A61K031-22; A61K031-34
ICA C07C033-24; C07C039-15; C07C043-20; C07C069-21; C07D307-10; C07D307-33
CC 25-18 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)
Section cross-reference(s): **1**, 27, **63**

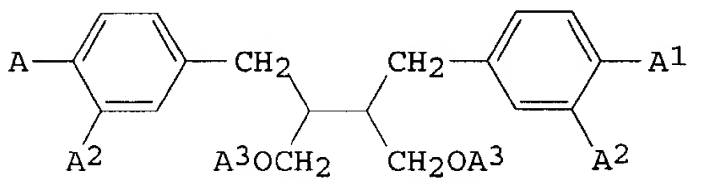
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 02040323	A2	19900209	JP 1988-186853	19880728
PRAI JP 1988-186853		19880728		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 02040323	ICM	A61K031-05
	ICS	A61K031-075; A61K031-22; A61K031-34
	ICA	C07C033-24; C07C039-15; C07C043-20; C07C069-21; C07D307-10; C07D307-33

OS MARPAT 114:23554
GI



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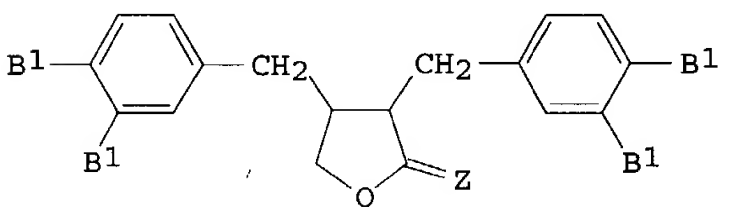


II

AB The title compds. (I, II; A, A1, A2 = H, OH, MeO; A3 = H, Me, Ac; B1 = H, MeO; Z = O, 2H) were prepared and formulated as immunosuppressants. A solution of hydrocinnamic acid in THF was added to BuLi-hexane at -72° with stirring under Ar, the solution warmed to -10°, cooled to -62°, a solution of iodine in THF was added to give (±)-2,3-dibenzylsuccinic acid, which was esterified with MeI in DMF under Ar to give the di-Me ester (III). Reduction of III gave diol (±)-I (A = A1 = A2 = A3 = H), which inhibited mitogen-stimulated human peripheral lymphocyte proliferation by 56.8%. Also prepared and tested were 17 addnl. I and II. Tablet, granular, and injection formulations were also given.

ST immunosuppressant dibenzylbutanediol dibenzyltetrahydrofuran prepn; benzylbutanediol prepn immunosuppressant; benzyltetrahydrofuran prepn immunosuppressant

IT **Immunosuppressants**
(dibenzylbutanediol and dibenzyltetrahydrofuran derivs.)

IT 501-52-0, Hydrocinnamic acid
RL: RCT (Reactant); RACT (Reactant or reagent)
(coupling reaction of)

IT 2316-26-9, 3,4-Dimethoxycinnamic acid 6099-04-3, m-Methoxycinnamic acid

RL: RCT (Reactant); RACT (Reactant or reagent)
(hydrogenation of, in preparation of immunosuppressants)

IT 2107-70-2P, 3,4-Dimethoxyhydrocinnamic acid 10516-71-9P, 3-Methoxydihydrocinnamic acid
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and coupling reaction of, in preparation of immunosuppressants)

IT 93609-04-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and dehydration of, in preparation of immunosuppressants)

IT 93578-36-0P 93578-39-3P 119516-58-4P 126965-29-5P 126965-30-8P 126965-33-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and esterification of, in preparation of immunosuppressants)

IT 121955-01-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and etherification of, in preparation of immunosuppressants)

IT 126965-31-9P 126981-89-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and lactonization of, in preparation of immunosuppressants)

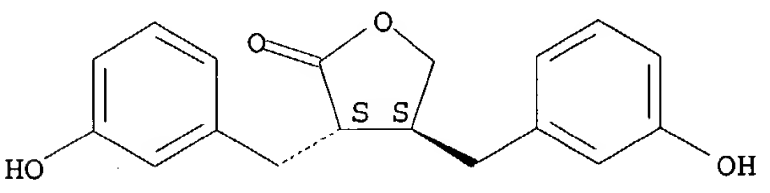
IT 81436-89-7P 119516-59-5P 121955-10-0P 126965-28-4P 126965-34-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reduction of, in preparation of immunosuppressants)

IT 77756-22-0P 77756-23-1P 78473-70-8P **78473-71-9P**
93451-90-2P 119516-60-8P 121851-41-0P 121955-04-2P 121955-05-3P
121955-06-4P 121955-07-5P 121955-09-7P 121986-75-2P 122045-61-8P
122045-63-0P 123808-59-3P 123877-50-9P 131049-50-8P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); **THU (Therapeutic use)**; BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of, as immunosuppressant)

IT **78473-71-9P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); **THU (Therapeutic use)**; BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of, as immunosuppressant)

RN 78473-71-9 HCAPLUS
CN 2(3H)-Furanone, dihydro-3,4-bis[(3-hydroxyphenyl)methyl]-, (3R,4R)-rel- (9CI) (CA INDEX NAME)

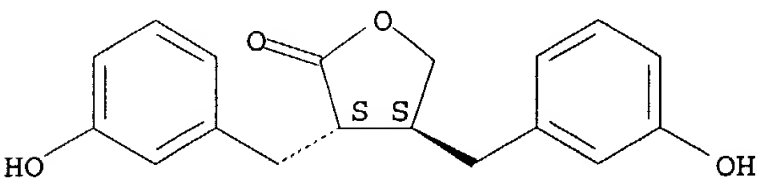
Relative stereochemistry.



L83 ANSWER 14 OF 14 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1982:17711 HCAPLUS
DN 96:17711
ED Entered STN: 12 May 1984
TI Lignan formation in man. Microbial involvement and possible roles in relation to cancer
AU Setchell, K. D. R.; Borriello, S. P.; Gordon, H.; Lawson, A. M.; Harkness, R.; Morgan, D. M. L.; Kirk, D. N.; Adlercreutz, H.; Anderson, L. C.;

Axelson, M.
CS Div. Clin. Chem., Clin. Res. Cent., Harrow, HA1 3UJ, UK
SO Lancet (**1981**), 2(8236), 4-7
CODEN: LANCAO; ISSN: 0023-7507
DT Journal
LA English
CC 13-2 (Mammalian Biochemistry)
Section cross-reference(s): 2, 4, 10
AB Studies of the formation of 2 lignans (named **enterolactone** and enterodiol) in man, by means of selective antibiotic administration, confirmed that these new compds. are formed by intestinal microflora. Bacteriol. studies of stools collected after metronidazole administration indicated that clostridia may be responsible for the formation of these highly aromatic compds. The role of lignans in intestinal cancer is discussed.
ST lignan formation intestine microorganism cancer; Clostridium intestine lignan formation cancer; urine feces **enterolactone** enterodiol
IT Nomenclature, new natural products
(enterodiol)
IT Feces
Urine
(enterodiol and **enterolactone** of, intestinal microorganisms in relation to)
IT Nomenclature, new natural products
(**enterolactone**)
IT **Lymphocyte**
(**enterolactone** toxicity to)
IT **Lignans**
RL: FORM (Formation, nonpreparative)
(formation of, intestinal microflora in, cancer in relation to)
IT Clostridium
(intestinal, in lignan formation, cancer in relation to)
IT Neoplasm
(of intestine, lignans in relation to)
IT Intestine, neoplasm
(cancer, lignans in relation to)
IT Microorganism
(intestinal, in lignan formation, cancer in relation to)
IT **78473-71-9** 80226-00-2
RL: FORM (Formation, nonpreparative)
(formation of, intestinal microorganisms in relation to)
IT **78473-71-9**
RL: FORM (Formation, nonpreparative)
(formation of, intestinal microorganisms in relation to)
RN 78473-71-9 HCAPLUS
CN 2(3H)-Furanone, dihydro-3,4-bis[(3-hydroxyphenyl)methyl]-, (3R,4R)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



=> => d all hitstr tot l88

L88 ANSWER 1 OF 2 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1997:22530 HCAPLUS

DN 126:139494
ED Entered STN: 15 Jan 1997
TI Studies on differentiation inducers. VI. Lignan derivatives from Arctium Fructus. (2)
AU Umehara, Kaoru; Nakamura, Mitsuhiro; Miyase, Toshio; Kuroyanagi, Masanori; Uneo, Akira
CS Sch. Pharm. Sci., Univ. Shizuoka, Shizuoka, 422, Japan
SO Chemical & Pharmaceutical Bulletin (1996), 44(12), 2300-2304
CODEN: CPBTAL; ISSN: 0009-2363
PB Pharmaceutical Society of Japan
DT Journal
LA English
CC 1-3 (Pharmacology)
Section cross-reference(s): 11, 26
AB In the previous paper, we reported the differentiation inducing activities of lignoids from Arctium Fructus (the fruits of Arctium lappa L., compositae) against mouse myeloid leukemia cells (M1). We reinvestigated the active components of this extract and isolated three new dilignans. Furthermore, structure modifications were carried out using the most active lignan (arctigenin) and its structure-activity relationship was investigated. Its aliphatic esters were more effective in inducing the differentiation of M1 cells than its aromatic esters. Especially n-docanoate, which was the most active derivative, induced more than half of the M1 cells into **phagocytic** cells at a concentration of 2 μM.
ST Arctium lignan deriv prepn differentiation inducer; leukemia cell differentiation inducer lignan deriv
IT New natural products
(arctignan F (lignan))
IT New natural products
(arctignan G (lignan))
IT New natural products
(arctignan H (lignan))
IT Cell differentiation
(inducers; lignans from Arctium Fructus as myeloid leukemia differentiation inducers)
IT Antitumor agents
(leukemia; lignans from Arctium Fructus as myeloid leukemia differentiation inducers)
IT Arctium
Macrophage
Phagocytosis
Structure-activity relationship
(lignans from Arctium Fructus as myeloid leukemia differentiation inducers)
IT Lignans
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(lignans from Arctium Fructus as myeloid leukemia differentiation inducers)
IT Leukemia
(myelogenous; lignans from Arctium Fructus as myeloid leukemia differentiation inducers)
IT **580-72-3P**, **Matairesinol** 62333-08-8P, Lappaol A 62359-60-8P, Lappaol B 64855-00-1P, Lappaol C 131400-96-9P, Isolappaol A 186541-65-1P, Arctignan F 186541-89-9P, Arctignan G 186543-11-3P, Arctignan H
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(lignans from Arctium Fructus as myeloid leukemia differentiation inducers)
IT 69232-85-5P 74861-36-2P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological

study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(lignans from Arctium Fructus as myeloid leukemia differentiation inducers)

IT 7770-78-7 20362-31-6
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); THU (Therapeutic use); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)
(lignans from Arctium Fructus as myeloid leukemia differentiation inducers)

IT 25488-59-9P 73354-08-2P 119069-38-4P 186449-80-9P 186449-81-0P
186449-82-1P 186449-83-2P 186449-84-3P 186449-85-4P 186449-86-5P
186449-87-6P 186449-88-7P 186449-89-8P 186449-90-1P 186449-91-2P
186449-92-3P 186449-93-4P 186449-94-5P 186449-95-6P 186449-96-7P
186449-97-8P 186583-53-9P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(lignans from Arctium Fructus as myeloid leukemia differentiation inducers)

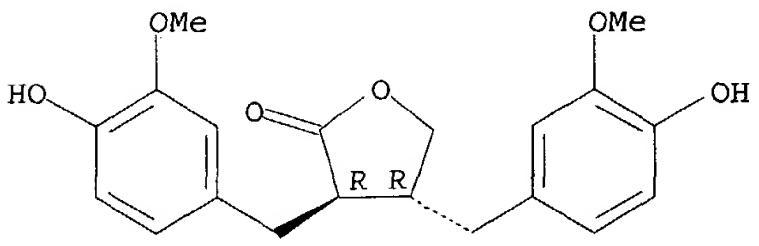
IT 41328-76-1 69394-17-8, Lappaol F
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(lignans from Arctium Fructus as myeloid leukemia differentiation inducers)

RE.CNT 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Freudenberg, K; Chem Ber 1957, V90, P2857
(2) Hartwell, J; Fortschr Chem Org Naturst 1958, V15, P83 HCAPLUS
(3) Kupchan, S; J Am Chem Soc 1973, V95, P1335 HCAPLUS
(4) Landais, Y; Tetrahedron 1991, V47, P3787 HCAPLUS
(5) Magae, J; Agric Biol Chem 1988, V52, P3143 HCAPLUS
(6) Miyamura, C; FEBS Lett 1988, V234, P17
(7) Nishibe, S; Chem Pharm Bull 1981, V29, P2078 HCAPLUS
(8) Sugiyama, S; Chem Pharm Bull 1993, V41, P714 HCAPLUS
(9) Umehara, K; Chem Pharm Bull 1992, V40, P401 HCAPLUS
(10) Umehara, K; Chem Pharm Bull 1993, V41, P1774 HCAPLUS
(11) Umehara, K; Chem Pharm Bull 1994, V42, P611 HCAPLUS
(12) Umehara, K; Chem Pharm Bull 1995, V43, P1565 HCAPLUS
(13) Yamamoto, Y; Exp Cell Res 1986, V164, P97

IT **580-72-3P, Matairesinol**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(lignans from Arctium Fructus as myeloid leukemia differentiation inducers)

RN 580-72-3 HCAPLUS
CN 2(3H)-Furanone, dihydro-3,4-bis[(4-hydroxy-3-methoxyphenyl)methyl]-, (3R,4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



L88 ANSWER 2 OF 2 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1994:431077 HCAPLUS
DN 121:31077
ED Entered STN: 23 Jul 1994
TI Studies on differentiation-inducers from Arctium Fructus
AU Umehara, Kaoru; Sugawa, Ariko; Kuroyanagi, Masanori; Ueno, Akira; Taki, Takao
CS Sch. Pharm. Sci., Univ. Shizuoka, Shizuoka, 422, Japan
SO Chemical & Pharmaceutical Bulletin (1993), 41(10), 1774-9
CODEN: CPBTAL; ISSN: 0009-2363
DT Journal
LA English
CC 11-1 (Plant Biochemistry)
Section cross-reference(s): 1, 26
AB In the course of studying differentiation-inducers from plants, their isolation was performed from the methanolic extract of Arctium Fructus (the fruits of Arctium lappa L., Compositae), and then their **phagocytic** activity on differentiated mouse myeloid leukemia cells (M1) was monitored. Thirteen compds., including five new ones (arctignans A-E), were isolated as differentiation-inducers toward M1 cells. These consisted of two lignans, eight sesquilignans and three dilignans. Arctigenin (2) was the most effective compound of all those isolated, and it induced differentiation of M1 cells at a concentration 0.5 μM. Sesquilignans were less effective than lignans and dilignans showed even weaker activity. These lignoids were inactive towards a human acute promyelocytic leukemia cell line (HL-60).
ST Arctium arctignan neoplasm inhibitor cell differentiation
IT Nomenclature, new natural products
(arctignan A (lignan))
IT Nomenclature, new natural products
(arctignan B (lignan))
IT Nomenclature, new natural products
(arctignan C (lignan))
IT Nomenclature, new natural products
(arctignan D (lignan))
IT Nomenclature, new natural products
(arctignan E (lignan))
IT Lignans
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(from Arctium lappa, isolation and **phagocytic** activity of, on differentiated myeloid leukemia cells)
IT Cell differentiation
(inducers, lignans from Arctium lappa as, of tumor cells)
IT Molecular structure, natural product
(of arctignan A (lignan))
IT Molecular structure, natural product
(of arctignan B (lignan))
IT Molecular structure, natural product
(of arctignan C (lignan))
IT Molecular structure, natural product
(of arctignan D (lignan))
IT Molecular structure, natural product
(of arctignan E (lignan))
IT Lignans
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(di-, from Arctium lappa, isolation and **phagocytic** activity of, on differentiated myeloid leukemia cells)
IT Neoplasm inhibitors
(leukemia, lignans from Arctium lappa as)
IT Lignans

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(sesqui-, from Arctium lappa, isolation and **phagocytic** activity of, on differentiated myeloid leukemia cells)

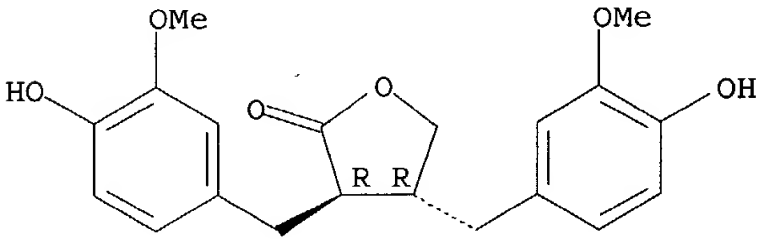
IT **580-72-3** 7770-78-7, Arctigenin 20362-31-6 62333-08-8 62359-60-8 64855-00-1 64855-02-3 69394-17-8 131400-96-9 155661-08-8, Arctignan A 155661-09-9, Arctignan B 155661-10-2, Arctignan C 155661-11-3, Arctignan D 155661-12-4, Arctignan E
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(from Arctium lappa, isolation and **phagocytic** activity of, on differentiated myeloid leukemia cells)

IT 25488-59-9P 69232-85-5P 74861-36-2P 119069-38-4P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and **phagocytic** activity of, on differentiated myeloid leukemia cells)

IT **580-72-3**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(from Arctium lappa, isolation and **phagocytic** activity of, on differentiated myeloid leukemia cells)

RN 580-72-3 HCAPLUS
CN 2(3H)-Furanone, dihydro-3,4-bis[(4-hydroxy-3-methoxyphenyl)methyl]-, (3R,4R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



=> => fil medline
FILE 'MEDLINE' ENTERED AT 14:32:05 ON 30 SEP 2004

FILE LAST UPDATED: 29 SEP 2004 (20040929/UP). FILE COVERS 1951 TO DATE.

On February 29, 2004, the 2004 MeSH terms were loaded. See HELP RLOAD for details. OLDMEDLINE now back to 1951.

MEDLINE thesauri in the /CN, /CT, and /MN fields incorporate the MeSH 2004 vocabulary. See http://www.nlm.nih.gov/mesh/ and http://www.nlm.nih.gov/pubs/techbull/nd03/nd03_mesh.html for a description of changes.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d all tot l108

L108 ANSWER 1 OF 5 MEDLINE on STN
AN 2003070677 MEDLINE
DN PubMed ID: 12580104
TI New biflavanones and bioactive compounds from Stellera chamaejasme L.
AU Xu Z H; Qin G W; Li X Y; Xu R S
CS Shanghai Institute of Materia Medica, Shanghai Institutes of Biological Sciences, Chinese Academy of Sciences, Shanghai 200031, China.

SO Yao xue xue bao = Acta pharmaceutica Sinica, **(2001 Sep)** 36 (9) 669-71.
Journal code: 21710340R. ISSN: 0513-4870.
CY China
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 200402
ED Entered STN: 20030214
Last Updated on STN: 20040207
Entered Medline: 20040206
AB AIM: To study the chemical constituents of the root of Stellera chamaejasme L. METHODS: Various column chromatographies on silica gel and RP-18 were employed for isolation and purification. Structures of compounds were elucidated by spectral analysis. RESULTS: Eight lignans and three biflavonoids possessing a C-3/C-3" linkage were isolated. They are ruixianglangdusu A (1) and B (2), 4',4'",5,5",7,7"-hexahydroxy-3,3"-biflavone (3), (+)-kusunokinin (4), lirioresinol-B (5), magnolenin C (6), (-)-pinoresinol monomethyl ether (7), (-)-pinoresinol (8), (+)-**matairesinol** (9), isohinokinin (10) and (-)-eudesmin (11). CONCLUSION: Compounds 1 and 2 are new biflavanones, 1 is enantiomeric to known chamaejasmenin C, 4, 6, 8, 9, 10 and 11 were isolated from this plant for the first time, and 7 was isolated from natural resources for the first time. In vitro bioassays showed that 3 and 8 exhibited antibacterial activity, and 1, 2, 9 and 11 exhibited immunomodulatory activity.
CT Adjuvants, Immunologic: CH, chemistry
Adjuvants, Immunologic: IP, isolation & purification
Adjuvants, Immunologic: PD, pharmacology
Anti-Infective Agents: CH, chemistry
Anti-Infective Agents: IP, isolation & purification
Anti-Infective Agents: PD, pharmacology
B-Lymphocytes: DE, drug effects
Flavanones: CH, chemistry
*Flavanones: IP, isolation & purification
Flavanones: PD, pharmacology
Molecular Structure
Plant Roots: CH, chemistry
*Plants, Medicinal: CH, chemistry
*Thymelaeaceae: CH, chemistry
CN 0 (Adjuvants, Immunologic); 0 (Anti-Infective Agents); 0 (Flavanones); 0 (ruixianglangdusu A); 0 (ruixianglangdusu B)

L108 ANSWER 2 OF 5 MEDLINE on STN
AN 2001451032 MEDLINE
DN PubMed ID: 11473435
TI Anti-AIDS agents. 46. Anti-HIV activity of harman, an anti-HIV principle from Symplocos setchuensis, and its derivatives.
AU Ishida J; Wang H K; Oyama M; Cosentino M L; Hu C Q; Lee K H
CS Natural Products Laboratory, School of Pharmacy, University of North Carolina, Chapel Hill, North Carolina 27599-7360, USA.
NC AI 33066 (NIAID)
SO Journal of natural products, **(2001 Jul)** 64 (7) 958-60.
Journal code: 7906882. ISSN: 0163-3864.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 200110
ED Entered STN: 20010813
Last Updated on STN: 20011015
Entered Medline: 20011011
AB **Matairesinol** (1) and harman (5), identified from Symplocos

setchuensis, were found to inhibit HIV replication in H9 lymphocyte cells. Anti-HIV evaluation of 28 derivatives of 5 revealed that compound 19 showed potent activity with EC(50) and therapeutic index values of 0.037 microM and 210, respectively.

CT Check Tags: Comparative Study; Human; Support, U.S. Gov't, P.H.S.
Anti-HIV Agents: CH, chemistry
*Anti-HIV Agents: IP, isolation & purification
Anti-HIV Agents: PD, pharmacology
Chromatography, High Pressure Liquid
Drugs, Chinese Herbal: CH, chemistry
*Drugs, Chinese Herbal: IP, isolation & purification
Drugs, Chinese Herbal: PD, pharmacology
Furans: CH, chemistry
*Furans: IP, isolation & purification
Furans: PD, pharmacology
Harmine: AA, analogs & derivatives
Harmine: CH, chemistry
*Harmine: IP, isolation & purification
Harmine: PD, pharmacology
Lignans: CH, chemistry
*Lignans: IP, isolation & purification
Lignans: PD, pharmacology
Lymphocytes: DE, drug effects
Lymphocytes: ME, metabolism
Molecular Structure
*Plants, Medicinal: CH, chemistry
Structure-Activity Relationship

RN 442-51-3 (Harmine); 486-84-0 (harman); **580-72-3 (matairesinol)**

CN 0 (Anti-HIV Agents); 0 (Drugs, Chinese Herbal); 0 (Furans); 0 (Lignans); 0 (N-butylharman)

L108 ANSWER 3 OF 5 MEDLINE on STN

AN 2000296660 MEDLINE

DN PubMed ID: 10837017

TI Isoflavonoids and lignans have different potentials to modulate oxidative genetic damage in human colon cells.

AU Pool-Zobel B L; Adlercreutz H; Glei M; Liegibel U M; Sittlingon J; Rowland I; Wahala K; Rechkemmer G

CS Department of Nutritional Toxicology, Institute for Nutrition, Friedrich Schiller University, Dornburger Strabetae 25, 07743 Jena, Germany.. b8pobe@uni-jena.de

SO Carcinogenesis, **(2000 Jun)** 21 (6) 1247-52.
Journal code: 8008055. ISSN: 0143-3334.

CY ENGLAND: United Kingdom

DT ~~(CLINICAL TRIAL)~~
Journal; Article; (JOURNAL ARTICLE)
(RANDOMIZED CONTROLLED TRIAL)

LA English

FS Priority Journals

EM 200008

ED Entered STN: 20000811
Last Updated on STN: 20000811
Entered Medline: 20000803

AB Polyphenolic compounds, including isoflavonoids and lignans, have been suggested to be chemopreventive on account of antioxidative properties. In this context it is of importance to have knowledge of their ability to reduce oxidative stress within target cells of tumorigenesis. Therefore, we investigated isoflavonoids and lignans for modulation of oxidative genetic damage in mammalian cells. H(2)O(2)-induced damage as well as endogenous DNA strand breaks and oxidized bases were determined after 30 min incubation of human colon cells with polyphenols using various modifications of the microgel electrophoresis assay (Comet assay). **Enterolactone**, a mammalian metabolite of plant lignans, was

additionally investigated for modulation of intracellular oxidative stress in NIH 3T3 cells using laser scanning microscopy. In vivo effects of rye crispbread (a source of lignans) were investigated in 12 human volunteers by determining genetic damage in lymphocytes and antioxidant activity in plasma (FRAP assay). Genistein induced DNA breaks in the human tumour cell line HT29 clone 19A (12.5-100 microM). The polyphenols (100 microM) did not reduce damage induced by 150 microM H(2)O(2), indicating that they lacked antioxidative potential. At this concentration **enterolactone** also had no effect on intracellular oxidative stress induced by 31.25 and 125 microM H(2)O(2). In contrast, **enterolactone**, dihydrogenistein and formononetin reduced endogenous oxidative DNA damage at 100 microM. Daily ingestion of nine slices (76.5 g/day) of rye crispbread per day (containing 41.8 and 33.0 microg/100 g dry weight secoisolariciresinol and **matairesinol**, respectively) for 2 weeks did not significantly reduce genetic damage in blood lymphocytes, nor was there a modulation of plasma antioxidant capacity. The moderate effects of high concentrations of the tested compounds on endogenous oxidative DNA damage and failure to prevent H(2)O(2)- induced damage are indicative of only marginal protective potential by antioxidant mechanisms. The genotoxic effects of genistein deserve further investigation.

CT Check Tags: Human; Support, Non-U.S. Gov't
3T3 Cells
Animals
*Antimutagenic Agents: PD, pharmacology
Bread
*Colon: DE, drug effects
Colon: PA, pathology
Comet Assay
Cross-Over Studies
*DNA Damage
*Flavonoids: PD, pharmacology
*Lignans: PD, pharmacology
Mice
***Oxidative Stress**
Secale cereale

CN 0 (Antimutagenic Agents); 0 (Flavonoids); 0 (Lignans)

L108 ANSWER 4 OF 5 MEDLINE on STN
AN 94366249 MEDLINE
DN PubMed ID: 8084211
TI Natural flavonoids and lignans are potent cytostatic agents against human leukemic HL-60 cells.
AU Hirano T; Gotoh M; Oka K
CS Department of Clinical Pharmacology, Tokyo College of Pharmacy, Japan.
SO Life sciences, **(1994)** 55 (13) 1061-9.
Journal code: 0375521. ISSN: 0024-3205.
CY ENGLAND: United Kingdom
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199410
ED Entered STN: 19941021
Last Updated on STN: 19970203
Entered Medline: 19941011
AB Anti leukemic-cell efficacy of 28 naturally occurring and synthetic flavonoids and 11 naturally occurring lignans on human promyelocytic leukemic cell line HL-60 were examined using MTT assay methods. Differences between anti cell-proliferative activity and cytotoxicity of these compounds were compared with those of 4 clinical anti-cancer agents. Eight of the 28 flavonoids and 4 of the 11 lignans showed considerable suppressive effects on HL-60 cell growth with IC50s ranging from 10-940 ng/ml. Among these compounds, genistein, honokiol, machilin A,

matairesinol, and arctigenin had the strongest effects with IC50s less than 100 ng/ml, which were almost equivalent to the effects of current anti-cancer agents. The flavonoid genistein and the lignans, however, showed little or no cytotoxicity against HL-60 cells as assessed by dye exclusion tests (LC50s > 2,900 ng/ml), whereas the regular anti-cancer agents had potent cytotoxicity. All of the flavonoids and lignans, except for machilin A and arctigenin, were less effective against growth of human T lymphocytic leukemia cell line MOLT-4. In addition, the flavonoid and the lignans showed little or no inhibiting activity on mitogen-induced blastogenesis of human peripheral-blood lymphocytes. The lignans and genistein were strongly suppressive against incorporations of [3H]thymidine, [3H]uridine, and [3H]leucine into HL-60 cells. These results showed that some of the naturally occurring flavonoids and lignans inhibited HL-60 cell growth with a non-toxic mechanism, possibly via cessation of DNA, RNA, and/or protein synthesis of the leukemic cells.

CT Check Tags: Comparative Study; Human
*Antineoplastic Agents: PD, pharmacology
Cell Division: DE, drug effects
Drug Screening Assays, Antitumor
*Flavonoids: PD, pharmacology
Leucine: ME, metabolism
*Leukemia, Promyelocytic, Acute: DT, drug therapy
Leukemia, Promyelocytic, Acute: ME, metabolism
Leukemia, Promyelocytic, Acute: PA, pathology
Leukemia, T-Cell: DT, drug therapy
Leukemia, T-Cell: PA, pathology
*Lignans: PD, pharmacology
Lymphocyte Activation: DE, drug effects
Lymphocytes: DE, drug effects
Lymphocytes: IM, immunology
Tetrazolium Salts
Thiazoles
Thymidine: ME, metabolism
Tumor Cells, Cultured: DE, drug effects
Uridine: ME, metabolism
RN 298-93-1 (thiazolyl blue); 50-89-5 (Thymidine); 58-96-8 (Uridine); 61-90-5 (Leucine)
CN 0 (Antineoplastic Agents); 0 (Flavonoids); 0 (Lignans); 0 (Tetrazolium Salts); 0 (Thiazoles)

L108 ANSWER 5 OF 5 MEDLINE on STN
AN 93085549 MEDLINE
DN PubMed ID: 1360514
TI Effect of mammalian lignans on fMLP-induced oxidative bursts in human polymorphonuclear leucocytes.
AU Morikawa M; Fukuchi K; Inoue M; Tsuboi M
CS Department of Pharmacology, Tokyo College of Pharmacy, Japan.
SO Journal of pharmacy and pharmacology, **(1992 Oct)** 44 (10) 859-61.
Journal code: 0376363. ISSN: 0022-3573.
CY ENGLAND: United Kingdom
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199301
ED Entered STN: 19930129
Last Updated on STN: 19950206
Entered Medline: 19930104
AB We examined the effects of mammalian lignans, **enterolactone**, prestegane B and 2,3-dibenzylbutane-1,4-diol (DBB) on superoxide production and luminol-dependent chemiluminescence (LCL) response in human polymorphonuclear leucocytes (PMNs). The three lignans had no direct effect on the responses of human PMNs. DBB and prestegane B enhanced the superoxide production and LCL response induced by formylmethionyl-leucyl-

phenylalanine (fMLP), but **enterolactone** inhibited fMLP-induced effects. The effects of DBB were stronger than those of prestegane B and the effects of DBB were inhibited by bromophenacyl bromide, mepacrine, N-(6-aminophenyl)-5-chloro-1-naphthalene, sulphonamide and trifluoroperazine, but not by gossypol, nordihydroguaretic acid, indomethacin, staurosporine, 1-(5-isoquinolinesulphonyl)-2-methylpiperazine dihydrochloride or (R,S)-2-methoxy-3-(octadecyl-carbamoyloxy)-propyl-2-(2-thiazoli o)-ethylphosphate. These results suggest that DBB primes the responses of human PMNs, and the priming effect is caused by the activation of phospholipase A2--and Ca(2+)-calmodulin-pathways, but not by the activation of lipoxygenase, cyclo-oxygenase and protein kinase C or by the release of platelet activating factor.

CT Check Tags: Human; In Vitro
Chemiluminescence
Lignans
*Lignin: PD, pharmacology
*N-Formylmethionine Leucyl-Phenylalanine: PD, pharmacology
***Neutrophils: DE, drug effects**
***Respiratory Burst: DE, drug effects**
Superoxides: AN, analysis

RN 11062-77-4 (Superoxides); 59880-97-6 (N-Formylmethionine Leucyl-Phenylalanine); 9005-53-2 (Lignin)

CN 0 (Lignans)

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RECORDS LAST ADDED: 29 September 2004 (20040929/ED)

FILE RELOADED: 19 October 2003.

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L116 ANSWER 1 OF 7 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN
AN 2004:386345 BIOSIS
DN PREV200400386057
TI Prenatal developmental toxicity study with 7-**hydroxymatairesinol** potassium acetate (HMRlignan) in rats.
AU Wolterbeek, A. P. M. [Reprint Author]; Roberts, A.; **Korte, H.**; **Unkila, M.**; Waalkens-Berendsen, D. H.
CS Toxicol and Appl Pharmacol Dept, TNO Nutr and Food Res, Zeist, Netherlands wolterbeek@voeding.tno.nl
SO Regulatory Toxicology and Pharmacology, (August 2004) Vol. 40, No. 1, pp. 1-8. print.
CODEN: RTOPDW. ISSN: 0273-2300.
DT Article
LA English
ED Entered STN: 29 Sep 2004
Last Updated on STN: 29 Sep 2004
AB Plant lignan 7-hydromatairesinol, a novel precursor of the mammalian

lignan **enterolactone** was evaluated in a prenatal developmental toxicity study conducted in the Wistar rat. Mated female rats were fed diets containing 0, 0.25, 1, and 4% (w/w) of 7-**hydroxymatairesinol** in the form of potassium acetate complex (HMR lignan; potassium acetate level approximately 20% w/w within the preparation) for days 0-21 of gestation. Test substance intake was calculated to be 0.14-0.18, 0.46-0.74, and 1.19-2.93 g/kg body weight/day for the low, mid, and high-dose groups, respectively. The rats were sacrificed on day 21 of the gestation period and examined for standard parameters of reproductive performance (fecundity index, gestation index, number of corpora lutea, number of implantations, pre- and post-implantation loss, number of early- and late resorptions, number of live- and dead fetuses, sex-ration and the weight of the reproductive organs). The fetuses were examined for external, visceral, and skeletal alterations. The results from this study showed no effects on reproductive performance or any treatment related findings following external, visceral, and skeletal examination of the fetuses. However, approximately half of the mated dams of the high-dose failed to thrive due to an unexpected large decrease in their food intake, and were sacrificed early. Body weights of the remaining animals of the high-dose group were decreased. Food consumption was decreased in all treatment groups during the first three days of the gestation period as a result of decreased palatability of the feed. In conclusion, the no-observed-effect level (NOEL) for maternal effects was 1%, whereas the NOEL for fetal development following daily oral HMR lignan administration throughout the gestation was equivalent to 4% in the diet.

CC Nutrition - General studies, nutritional status and methods 13202
Reproductive system - Physiology and biochemistry 16504
Toxicology - General and methods 22501
Development and Embryology - General and descriptive 25502

IT Major Concepts
Nutrition; Reproduction; Toxicology
IT Chemicals & Biochemicals
7-**hydroxymatairesinol** potassium acetate; lignan **enterolactone**; plant lignan; potassium acetate
IT Miscellaneous Descriptors
prenatal developmental toxicity study; reproductive performance
ORGN Classifier
Muridae 86375
Super Taxa
Rodentia; Mammalia; Vertebrata; Chordata; Animalia
Organism Name
Wistar rat (common): adult, fetus, female, male
Taxa Notes
Animals, Chordates, Mammals, Nonhuman Vertebrates, Nonhuman Mammals, Rodents, Vertebrates
RN 127-08-2 (potassium acetate)

L116 ANSWER 2 OF 7 BIOSIS on STN
AN 2004:181735 BIOSIS
DN PREV200400185021
TI Food additive or product or a pharmaceutical preparation, comprising **hydroxymatairesinol.**
AU **Ahotupa, Markku** [Inventor, Reprint Author]; Eckerman, Christer [Inventor]; **Kangas, Lauri** [Inventor]; Makela, Sari [Inventor]; Saarinen, Niina [Inventor]; Santti, Risto [Inventor]; Warri, Anni [Inventor]
CS Turku, Finland
ASSIGNEE: Hormos Nutraceutical Oy Ltd., Turku, Finland
PI US 6689809 February 10, 2004
SO Official Gazette of the United States Patent and Trademark Office Patents, (Feb 10 2004) Vol. 1279, No. 2. http://www.uspto.gov/web/menu/patdata.html . e-file.

ISSN: 0098-1133 (ISSN print).
DT Patent
LA English
ED Entered STN: 7 Apr 2004
Last Updated on STN: 7 Apr 2004
AB This invention relates to methods for prevention of cancers, certain non-cancer, hormone dependent diseases and/or cardiovascular diseases in a person, based on administering of **hydroxymatairesinol** to said person. The invention also concerns a method for increasing the level of **enterolactone** or another metabolite of **hydroxymatairesinol** in a person's serum thereby causing prevention of a cancer or a certain non-cancer, hormone dependent disease in a person, based on administering of **hydroxymatairesinol** to said person. Furthermore, this invention relates to pharmaceutical preparations, food additives and food products comprising **hydroxymatairesinol.**
NCL 514473000
CC Pathology - Therapy 12512
Nutrition - General studies, nutritional status and methods 13202
Food technology - General and methods 13502
Cardiovascular system - Heart pathology 14506
Cardiovascular system - Blood vessel pathology 14508
Endocrine - General 17002
Pharmacology - General 22002
Pharmacology - Cardiovascular system 22010
Pharmacology - Endocrine system 22016
Neoplasms - Pathology, clinical aspects and systemic effects 24004
Neoplasms - Therapeutic agents and therapy 24008
IT Major Concepts
Foods; Pharmacology
IT Diseases
cancer: neoplastic disease
Neoplasms (MeSH)
IT Diseases
cardiovascular disease: heart disease, vascular disease
Cardiovascular Diseases (MeSH)
IT Diseases
hormone dependent disease: endocrine disease
IT Chemicals & Biochemicals
enterolactone; **hydroxymatairesinol**:
antineoplastic-drug, cardiovascular-drug, hormone-drug, food additive
RN **78473-71-9** (**enterolactone**)
20268-71-7 (**hydroxymatairesinol**)

L116 ANSWER 3 OF 7 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN
AN 2002:583081 BIOSIS
DN PREV200200583081
TI USE OF **HYDROXYMATAIRESINOL** FOR PREVENTION OF CANCERS, NON-CANCER, HORMONE DEPENDENT DISEASES AND CARDIOVASCULAR DISEASES BY **HYDROXYMATAIRESINOL**, AND A PHARMACEUTICAL PREPARATION, FOOD ADDITIVE AND FOOD PRODUCT COMPRISING **HYDROXYMATAIRESINOL.**
AU **Ahotupa, Markku** [Inventor, Reprint author]; Eckerman, Chester [Inventor]; **Kangas, Lauri** [Inventor]; Makela, Sari [Inventor]; Saarinen, Niina [Inventor]; Santti, Risto [Inventor]; Warri, Anni [Inventor]
CS Turku, Finland
ASSIGNEE: Hormos Nutraceutical Oy Ltd., Turku, Finland
PI US 6451849 September 17, 2002
SO Official Gazette of the United States Patent and Trademark Office Patents, (Sep. 17, 2002) Vol. 1262, No. 3. http://www.uspto.gov/web/menu/patdata.html. e-file.
CODEN: OGUPE7. ISSN: 0098-1133.
DT Patent
LA English

ED Entered STN: 13 Nov 2002
Last Updated on STN: 13 Nov 2002
AB This invention relates to methods for prevention of cancers, certain non-cancer, hormone dependent diseases and/or cardiovascular diseases in a person, based on administering of **hydroxymatairesinol** to said person. The invention also concerns a method for increasing the level of **enterolactone** or another metabolite of **hydroxymatairesinol** in a person's serum thereby causing prevention of a cancer or a certain non-cancer, hormone dependent disease in a person, based on administering of **hydroxymatairesinol** to said person. Furthermore, this invention relates to pharmaceutical preparations, food additives and food products comprising **hydroxymatairesinol.**
NCL 514473000
CC Pharmacology - General 22002
Neoplasms - Pathology, clinical aspects and systemic effects 24004
Neoplasms - Therapeutic agents and therapy 24008
IT Major Concepts
Oncology (Human Medicine, Medical Sciences); Pharmacology
IT Diseases
cancer: neoplastic disease, drug therapy
Neoplasms (MeSH)
IT Chemicals & Biochemicals
hydroxymatairesinol: antineoplastic-drug
RN **20268-71-7 (hydroxymatairesinol)**

L116 ANSWER 4 OF 7 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN
AN 2000:422437 BIOSIS
DN PREV200000422437
TI A novel treatment for lupus nephritis: Lignan precursor derived from flax.
AU Clark, W. F. [Reprint author]; Muir, A. D.; Westcott, N. D.; Parbtani, A.
CS Division of Nephrology, London Health Sciences Centre, 375 South Street, London, Ontario, N6A 4G5, Canada
SO Lupus, (2000) Vol. 9, No. 6, pp. 429-436. print.
ISSN: 0961-2033.
DT Article
LA English
ED Entered STN: 4 Oct 2000
Last Updated on STN: 8 Jan 2002
AB Background: Flaxseed has renoprotective effects in animal and human lupus nephritis. We have recently extracted the lignan precursor (secoisolariresinol diglucoside) (SDG) to determine if this more palatable derivative of flaxseed would exert renoprotection similar to the whole flaxseed in the aggressive MRL/lpr lupus mouse model. Methods: 131 MRL/lpr mice were randomly assigned to saline gavage, 600, 1200 and 4800 mug lignan gavage groups. At 7 weeks, 6 animals underwent platelet aggregating factor (PAF) lethal challenge and 40 were studied with urine collection to determine the levels of secoisolariresinol, enterodiol and **enterolactone** in the gavaged animals. A baseline study of 10 saline gavaged animals took place at 6 weeks. 25 animals in the saline gavage, 600 and 1200 mug lignan groups were studied at 14 and 22 weeks for GFR, spleen **lymphocyte** S-phase and organ weight studies. Results: Metabolic studies indicated that secoisolariresinol is the major metabolite absorbed and the lowest lignan dose provides a lengthening in survival for the PAF lethal challenge. Body weight, fluid and water intake studies demonstrated that the lignan was well tolerated. Changes in proteinuria, GFR and renal size showed a time- and dose-dependent protection for the lignan precursor. Cervical lymph node size and spleen **lymphocyte** cells in the S-phase demonstrated modest dose-dependent reductions in the lignan gavaged groups. Conclusion: SDG was converted in the gut to secoisolariresinol, which was absorbed and well tolerated by the MRL/lpr mice. Renoprotection was evidenced, in a dose-dependent fashion, by a significant delay in the onset of proteinuria with preservation in GFR and renal size. This study suggests that SDG may have

a therapeutic role in lupus nephritis.
CC Bones, joints, fasciae, connective and adipose tissue - Pathology 18006
Digestive system - Physiology and biochemistry 14004
Urinary system - Pathology 15506
Immunology - Immunopathology, tissue immunology 34508
IT Major Concepts
Clinical Immunology (Human Medicine, Medical Sciences); Urology (Human Medicine, Medical Sciences)
IT Parts, Structures, & Systems of Organisms
gut: digestive system
IT Diseases
lupus nephritis: connective tissue disease, immune system disease, urologic disease, treatment
Lupus Nephritis (MeSH)
IT Diseases
proteinuria: urologic disease
Proteinuria (MeSH)
IT Chemicals & Biochemicals
lignan precursor: derived from flax
IT Miscellaneous Descriptors
body weight; glomerular filtration rate
ORGN Classifier
Hominidae 86215
Super Taxa
Primates; Mammalia; Vertebrata; Chordata; Animalia
Organism Name
human
Taxa Notes
Animals, Chordates, Humans, Mammals, Primates, Vertebrates
ORGN Classifier
Muridae 86375
Super Taxa
Rodentia; Mammalia; Vertebrata; Chordata; Animalia
Organism Name
mouse: animal model
Taxa Notes
Animals, Chordates, Mammals, Nonhuman Vertebrates, Nonhuman Mammals, Rodents, Vertebrates

L116 ANSWER 5 OF 7 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN
AN 2000:331401 BIOSIS
DN PREV200000331401
TI **Hydroxymatairesinol**, a novel **enterolactone** precursor with antitumor properties from coniferous tree (Picea abies).
AU Saarinen, N. M. [Reprint author]; Warri, A. [Reprint author]; Makela, S. I. [Reprint author]; Eckerman, C.; Reunanen, M.; **Ahotupa, M.** [Reprint author]; Salmi, S. M. [Reprint author]; Franke, A. A.; **Kangas, L.**; Santti, R. [Reprint author]
CS Department of Anatomy and Medical Research Laboratory, Institute of Biomedicine, University of Turku, FIN-20520, Turku, Finland
SO Nutrition and Cancer, (2000) Vol. 36, No. 2, pp. 207-216. print.
CODEN: NUCADQ. ISSN: 0163-5581.
DT Article
LA English
ED Entered STN: 2 Aug 2000
Last Updated on STN: 7 Jan 2002
AB The potential for the extraction of the plant lignan **hydroxymatairesinol** (HMR) in large scale from Norway spruce (Picea abies) has given us the opportunity to study the metabolism and biological actions of HMR in animals. HMR, the most abundant single component of spruce lignans, was metabolized to **enterolactone** (ENL) as the major metabolite in rats after oral administration. The amounts of urinary ENL increased with the dose of HMR (from 3 to 50 mg/kg), and only

minor amounts of unmetabolized HMR isomers and other lignans were found in urine. HMR (15 mg/kg body wt po) given for 51 days decreased the number of growing tumors and increased the proportion of regressing and stabilized tumors in the rat dimethylbenz(a)anthracene-induced mammary tumor model. HMR (50 mg/kg body wt) did not exert estrogenic or antiestrogenic activity in the uterine growth test in immature rats. HMR also showed no antiandrogenic responses in the growth of accessory sex glands in adult male rats. Neither ENL nor enterodiol showed estrogenic or antiestrogenic activity via a classical alpha- or beta-type estrogen receptor-mediated pathway in vitro at <1.0 muM. HMR was an effective antioxidant in vitro.

CC Pharmacognosy and pharmaceutical botany 54000
Biochemistry studies - General 10060
Biophysics - General 10502
Pharmacology - General 22002
Neoplasms - General 24002
Plant physiology - Chemical constituents 51522

IT Major Concepts
Biochemistry and Molecular Biophysics; Pharmacognosy (Pharmacology); Tumor Biology

IT Diseases
cancer: neoplastic disease
Neoplasms (MeSH)

IT Chemicals & Biochemicals
hydroxymatairesinol: antitumor properties, **enterolactone** precursor, oral administration, quantitative structure-activity relationships

ORGN Classifier
Coniferopsida 25102
Super Taxa
Gymnospermae; Spermatophyta; Plantae
Organism Name
Picea abies [Norway spruce]: medicinal plant
Taxa Notes
Gymnosperms, Plants, Spermatophytes, Vascular Plants

ORGN Classifier
Muridae 86375
Super Taxa
Rodentia; Mammalia; Vertebrata; Chordata; Animalia
Organism Name
Sprague-Dawley rat: male
Taxa Notes
Animals, Chordates, Mammals, Nonhuman Vertebrates, Nonhuman Mammals, Rodents, Vertebrates

RN **20268-71-7 (hydroxymatairesinol)**

L116 ANSWER 6 OF 7 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN
AN 2000:331149 BIOSIS
DN PREV200000331149
TI Isoflavonoids and lignans have different potentials to modulate oxidative genetic damage in human colon cells.
AU Pool-Zobel, Beatrice L. [Reprint author]; Adlercreutz, Herman; Glei, Michael; Liegibel, Ute M.; Sittlingon, Julie; Rowland, Ian; Wahala, Kristiina; Rechkemmer, Gerhard
CS Department of Nutritional Toxicology, Institute for Nutrition, Friedrich Schiller University, Dornburger Strasse 25, 07743, Jena, Germany
SO Carcinogenesis (Oxford), (June, 2000) Vol. 21, No. 6, pp. 1247-1252. print.
CODEN: CRNGDP. ISSN: 0143-3334.
DT Article
LA English
ED Entered STN: 2 Aug 2000
Last Updated on STN: 7 Jan 2002

AB Polyphenolic compounds, including isoflavonoids and lignans, have been suggested to be chemopreventive on account of antioxidative properties. In this context it is of importance to have knowledge of their ability to reduce oxidative stress within target cells of tumorigenesis. Therefore, we investigated isoflavonoids and lignans for modulation of oxidative genetic damage in mammalian cells. H2O2-induced damage as well as endogenous DNA strand breaks and oxidized bases were determined after 30 min incubation of human colon cells with polyphenols using various modifications of the microgel electrophoresis assay (Comet assay). **Enterolactone**, a mammalian metabolite of plant lignans, was additionally investigated for modulation of intracellular oxidative stress in NIH 3T3 cells using laser scanning microscopy. In vivo effects of rye crispbread (a source of lignans) were investigated in 12 human volunteers by determining genetic damage in **lymphocytes** and antioxidant activity in plasma (FRAP assay). Genistein induced DNA breaks in the human tumour cell line HT29 clone 19A (12.5-100 muM). The polyphenols (100 muM) did not reduce damage induced by 150 muM H2O2, indicating that they lacked antioxidative potential. At this concentration **enterolactone** also had no effect on intracellular oxidative stress induced by 31.25 and 125 muM H2O2. In contrast, **enterolactone**, dihydrogenistein and formononetin reduced endogenous oxidative DNA damage at 100 muM. Daily ingestion of nine slices (76.5 g/day) of rye crispbread per day (containing 41.8 and 33.0 mug/100 g dry weight secoisolariciresinol and **matairesinol**, respectively) for 2 weeks did not significantly reduce genetic damage in blood **lymphocytes** , nor was there a modulation of plasma antioxidant capacity. The moderate effects of high concentrations of the tested compounds on endogenous oxidative DNA damage and failure to prevent H2O2-induced damage are indicative of only marginal protective potential by antioxidant mechanisms. The genotoxic effects of genistein deserve further investigation.

CC Cytology - Animal 02506
Cytology - Human 02508
Genetics - Animal 03506
Genetics - Human 03508
Pathology - Therapy 12512
Digestive system - Physiology and biochemistry 14004
Pharmacology - Clinical pharmacology 22005
Neoplasms - Pathology, clinical aspects and systemic effects 24004
Neoplasms - Therapeutic agents and therapy 24008

IT Major Concepts
Genetics; Pharmacology; Tumor Biology

IT Parts, Structures, & Systems of Organisms
colon cells: digestive system, drug-induced oxidative genetic damage modulation, hydrogen peroxide-induced DNA damage, in-vitro culture

IT Chemicals & Biochemicals
biochanin A: antineoplastic-drug, chemopreventive agent; daidzein: antineoplastic-drug, chemopreventive agent; enterodiol: antineoplastic-drug, chemopreventive agent; **enterolactone**: antineoplastic-drug, chemopreventive agent; equol: antineoplastic-drug, chemopreventive agent; formononetin: antineoplastic-drug, chemopreventive agent; genestein: antineoplastic-drug, chemopreventive agent

ORGN Classifier
Hominidae 86215
Super Taxa
Primates; Mammalia; Vertebrata; Chordata; Animalia
Organism Name
HT-29 cell line: clone 19, drug-induced oxidative genetic damage modulation, human colon cancer cell line, hydrogen peroxide-induced DNA damage, in-vitro model system
human: normal subjects
Taxa Notes

Animals, Chordates, Humans, Mammals, Primates, Vertebrates
ORGN Classifier
Muridae 86375
Super Taxa
Rodentia; Mammalia; Vertebrata; Chordata; Animalia
Organism Name
NIH3T3 cell line: drug-induced oxidative genetic damage modulation, hydrogen peroxide-induced DNA damage, in-vitro model system, mouse fibroblast cell line
Taxa Notes
Animals, Chordates, Mammals, Nonhuman Vertebrates, Nonhuman Mammals, Rodents, Vertebrates
RN 491-80-5 (biochanin A)
486-66-8 (daidzein)
80226-00-2 (enterodiol)
78473-71-9 (enterolactone)
531-95-3 (equol)
485-72-3 (formononetin)

L116 ANSWER 7 OF 7 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN
AN 1994:452533 BIOSIS
DN PREV199497465533
TI Natural flavonoids and lignans are potent cytostatic agents against human leukemic HL-60 cells.
AU Hirano, Toshihiko; Gotoh, Manabu; Oka, Kitaro
CS Department Clinical Pharmacology, Tokyo College Pharmacy, 1432-1 Hachioji, Tokyo 192-03, Japan
SO Life Sciences, (1994) Vol. 55, No. 13, pp. 1061-1069.
CODEN: LIFSAK. ISSN: 0024-3205.
DT Article
LA English
ED Entered STN: 24 Oct 1994
Last Updated on STN: 16 Dec 1994
AB Anti leukemic-cell efficacy of 28 naturally occurring and synthetic flavonoids and 11 naturally occurring lignans on human promyelocytic leukemic cell line HL-60 were examined using MTT assay methods. Differences between anti cell-proliferative activity and cytotoxicity of these compounds were compared with those of 4 clinical anti-cancer agents. Eight of the 28 flavonoids and 4 of the 11 lignans showed considerable suppressive effects on HL-60 cell growth with IC-50s ranging from 10-940 ng/ml. Among these compounds, genistein, honokiol, machilin A, **matairesinol**, and arctigenin had the strongest effects with IC-50s less than 100 ng/ml, which were almost equivalent to the effects of current anti-cancer agents. The flavonoid genistein and the lignans, however, showed little or no cytotoxicity against HL-60 cells as assessed by dye exclusion tests (LC-50s gt 2,900ng/ml), whereas the regular anti-cancer agents had potent cytotoxicity. All of the flavonoids and lignans, except for machilin A and arctigenin, were less effective against growth of human T **lymphocytic** leukemia cell line MOLT-4. In addition, the flavonoid and the lignans showed little or no inhibiting activity on mitogen-induced blastogenesis of human peripheral-blood **lymphocytes.** The lignans and genistein were strongly suppressive against incorporations of (3H)thymidine, (3H)uridine, and (3H)leucine into HL-60 cells. These results showed that some of the naturally occurring flavonoids and lignans inhibited HL-60 cell growth with a non-toxic mechanism, possibly via cessation of DNA, RNA, and/or protein synthesis of the leukemic cells.
CC Cytology - Human 02508
Biochemistry studies - General 10060
Biochemistry studies - Nucleic acids, purines and pyrimidines 10062
Biochemistry studies - Proteins, peptides and amino acids 10064
Pathology - Therapy 12512
Metabolism - Proteins, peptides and amino acids 13012

Metabolism - Nucleic acids, purines and pyrimidines 13014
Blood - Blood cell studies 15004
Blood - Blood, lymphatic and reticuloendothelial pathologies 15006
Blood - Lymphatic tissue and reticuloendothelial system 15008
Pharmacology - Clinical pharmacology 22005
Pharmacology - Blood and hematopoietic agents 22008
Neoplasms - Therapeutic agents and therapy 24008
Neoplasms - Blood and reticuloendothelial neoplasms 24010
Development and Embryology - Morphogenesis 25508
Immunology - Immunopathology, tissue immunology 34508
Plant physiology - Chemical constituents 51522
Pharmacognosy and pharmaceutical botany 54000

IT Major Concepts
Blood and Lymphatics (Transport and Circulation); Cell Biology; Clinical Endocrinology (Human Medicine, Medical Sciences); Development; Hematology (Human Medicine, Medical Sciences); Metabolism; Oncology (Human Medicine, Medical Sciences); Pharmacognosy (Pharmacology); Pharmacology

IT Chemicals & Biochemicals
GENISTEIN; HONOKIOL; MACHILIN A; **MATAIRESINOL**; ARCTIGENIN

IT Miscellaneous Descriptors
ANTINEOPLASTIC-DRUG; ARCTIGENIN; CELL GROWTH; CYTOTOXICITY; GENISTEIN; HONOKIOL; IMMUNOSUPPRESSION; MACHILIN A; **MATAIRESINOL**; NUCLEIC ACID SYNTHESIS; PERIPHERAL BLOOD **LYMPHOCYTE**; POTENTIAL THERAPEUTIC APPLICATION; PROTEIN SYNTHESIS

ORGN Classifier
Aristolochiaceae 25595
Super Taxa
Dicotyledones; Angiospermae; Spermatophyta; Plantae
Organism Name
Asarum sieboldi
Taxa Notes
Angiosperms, Dicots, Plants, Spermatophytes, Vascular Plants

ORGN Classifier
Hominidae 86215
Super Taxa
Primates; Mammalia; Vertebrata; Chordata; Animalia
Organism Name
Hominidae
Taxa Notes
Animals, Chordates, Humans, Mammals, Primates, Vertebrates

ORGN Classifier
Lauraceae 26245
Super Taxa
Dicotyledones; Angiospermae; Spermatophyta; Plantae
Organism Name
Machilus thunbergii
Taxa Notes
Angiosperms, Dicots, Plants, Spermatophytes, Vascular Plants

ORGN Classifier
Organisms 00500
Super Taxa
Organisms
Organism Name
Forsythia viridissima
Taxa Notes
Organisms

ORGN Classifier
Pedaliaceae 26525
Super Taxa
Dicotyledones; Angiospermae; Spermatophyta; Plantae
Organism Name
Sesamum indicum

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      Taxa Notes
         Angiosperms, Dicots, Plants, Spermatophytes, Vascular Plants
ORGN Classifier
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      Super Taxa
         Dicotyledones; Angiospermae; Spermatophyta; Plantae
      Organism Name
         Saxifragaceae
      Taxa Notes
         Angiosperms, Dicots, Plants, Spermatophytes, Vascular Plants
RN    446-72-0 (GENISTEIN)
      35354-74-6 (HONOKIOL)
      110269-50-6 (MACHILIN A)
        580-72-3 (MATAIRESINOL)
      7770-78-7 (ARCTIGENIN)


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FILE LAST UPDATED:          28 SEP 2004      <20040928/UP>
MOST RECENT DERWENT UPDATE:     200462        <200462/DW>
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=> d all abeq tech abex

L124 ANSWER 1 OF 1  WPIX  COPYRIGHT 2004 THE THOMSON CORP on STN
AN    2003-658464 [62]    WPIX
DNC   C2003-179746
TI    Inhibiting overactivity of phagocytes or lymphocytes
      in individual used for treating or preventing an acute
      ischemia-reperfusion injury or chronic condition, e.g. rheumatoid
      arthritis, by administering lignan.
DC    B03 D13
IN    AHOTUPA, M; ERIKSSON, J; KANGAS, L; KOMI, J; KORTE, H; PERALA, M; UNKILA,
      M; PERAELAE, M
PA    (AHOT-I) AHOTUPA M; (ERIK-I) ERIKSSON J; (KANG-I) KANGAS L; (KOMI-I) KOMI
      J; (KORT-I) KORTE H; (PERA-I) PERALA M; (UNKI-I) UNKILA M; (HORM-N) HORMOS
      NUTRACEUTICAL LTD OY
CYC   101
PI    US 2003100514    A1 20030529 (200362)*       10     A61K031-365
      WO 2003045376    A1 20030605 (200362)  EN           A61K031-34
         RW: AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR IE IT KE LS LU
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MC MW MZ NL OA PT SD SE SK SL SZ TR TZ UG ZM ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK
DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR
KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT
RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA
ZM ZW

AU 2002365519 A1 20030610 (200419) A61K031-34

ADT US 2003100514 A1 US 2001-991971 20011126; WO 2003045376 A1 WO 2002-FI936 20021121; AU 2002365519 A1 AU 2002-365519 20021121

FDT AU 2002365519 A1 Based on WO 2003045376

PRAI US 2001-991971 20011126

IC ICM A61K031-34; A61K031-365
ICS A61K031-05

AB US2003100514 A UPAB: 20030928
NOVELTY - Overactivity of **phagocytes** or **lymphocytes** in an individual is inhibited by administering a lignan.
DETAILED DESCRIPTION - Inhibiting overactivity of **phagocytes** or **lymphocytes** in an individual by administering a lignan, where the **phagocytes** are **neutrophils** and the lignan is **hydroxymatairesinol** and/or **matairesinol**; the **phagocytes** are cells of **myeloid** origin and the lignan is **enterolactone** and/or **hydroxymatairesinol**; or the **lymphocytes** are T-**lymphocytes** and the lignan is **hydroxymatairesinol**, **matairesinol**, and/or **enterolactone**.
ACTIVITY - Vasotropic; Cardiant; Cerebroprotective; Antibacterial; Immunosuppressive; Antirheumatic; Antiarthritic; Antiinflammatory; Anti-HIV; Antipsoriatic; Antiallergic; Antiparkinsonian; Nootropic; Neuroprotective; Osteopathic; Antidiabetic; Antiarteriosclerotic; Ophthalmological.
MECHANISM OF ACTION - None given.
USE - The invention is used for inhibiting overactivity of **phagocytes** or **lymphocytes** in an individual, thus treating or preventing an acute ischemia- reperfusion injury or a chronic condition. Acute ischemia-reperfusion injury is an injury in myocardial infarction, stroke, transplantation, adult respiratory distress syndrome, ischemic heart disease, or endotoxic or hemorrhagic shock. Chronic condition includes rheumatoid arthritis, allergic conditions including inflammatory bowel disease or an inflammatory condition of the skin, HIV, AIDS, psoriasis, Parkinson's disease, Alzheimer's disease, autoimmune disease, type I or type II diabetes, hypercholesterolemic atherosclerosis, cataract, osteoporosis or amylotrophic lateral sclerosis. (All claimed)
ADVANTAGE - The invention decreases the formation of **reactive oxygen species**. It lowers the risk, prevents or treats other diseases or conditions, which are not due to lipid, DNA, or protein oxidation but which are due to overactive **neutrophils**.
DESCRIPTION OF DRAWING(S) - The figure shows the **oxidative burst** and myeloperoxidase activity.
Dwg.1/4

FS CPI

FA AB; GI; DCN

MC CPI: B07-A02A; B10-E04C; B14-A01; B14-A02B1; B14-C03; B14-C06; B14-C09; B14-F01; B14-F02; B14-F07; B14-G02; B14-J01; B14-J01A3; B14-N03; B14-N17C; B14-S04; D03-H01T2

TECH UPTX: 20030928
TECHNOLOGY FOCUS - BIOLOGY - Preferred Component: The **phagocytes** are cells of **myeloid** origin, the TNF-alpha release of which is reduced, and the lignan is **enterolactone** or **hydroxymatairesinol**.

ABEX UPTX: 20030928
ADMINISTRATION - Dosage comprises 10-2000 mg/day, preferably 100-600 mg/day for adult persons, and may be administered orally. Oral dosage forms includes powders, granules, capsules, tablets, caplets, lozenges,

liquids, elixirs, emulsions, and suspensions.
EXAMPLE - Monocytes were isolated from human peripheral blood mononuclear cells by magnetic sorting. The cells were pre-incubated with the lignans **matairesinol** and **enterolactone** (1-100 micro M) or interleukin-10 (IL-10) (100 U/ml) for 24 hours before addition of LPS (1 micro g/ml) into cell culture. After additional 48 hours the levels of TNF from culture supernatants were measured by enzyme linked immunosorbent assays (ELISA). Results showed that **matairesinol** and **enterolactone** were effective at concentration of 100 micro M as the positive control, IL-10.

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=> d his

     (FILE 'HOME' ENTERED AT 13:25:41 ON 30 SEP 2004)
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L2             3 S 580-72-3 OR 20268-71-7 OR 78473-71-9
               E C20H2207/MF
               E C20H22O7/MF
L3            37 S E3 AND 46.150.18/RID AND OC4/ES AND 3/NR
L4            26 S L3 AND 3 METHOXY
L5            26 S L4 AND 4 HYDROXY
L6            21 S L5 AND FURANONE
               SEL RN 1 6 7 8 10 11 16 20
L7             8 S E1-E8
L8             7 S L7 NOT 718614-97-2
               SEL RN 4 5
L9             5 S L8 NOT E9-E10
L10           32 S L3 NOT L9
               E C20H2206/MF
L11           56 S E3 AND OC4/ES AND 46.150.18/RID AND 3/NR
L12           12 S L11 AND 4 HYDROXY AND 3 METHOXY AND FURANONE
L13            4 S L12 NOT (D/ELS OR 13C# OR LABELED)
               E C18H1804/MF
L14           37 S E3 AND OC4/ES AND 46.150.18/RID AND 3/NR
L15            8 S L14 AND 3 HYDROXY AND BIS AND FURANONE
L16            5 S L15 NOT (D/ELS OR LABELED OR 13C)
L17           14 S L2,L9,L13,L16
L18            9 S L17 AND (?MATAIRESINOL? OR ?ENTEROLACTON?)/CNS
L19            5 S L17 NOT L18
L20           14 S L17-L19
               SEL RN
L21            8 S E1-E14/CRN

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L22          527 S L20
L23          583 S ENTEROLACTON? OR HYDROXYMATAIRESINOL? OR MATAIRESINOL?
L24          640 S L22,L23
               E AHOTUPA M/AU
L25           91 S E3-E5
               E ERIKSSON J/AU
L26          221 S E3-E11,E34-E36
               E KANGAS L/AU
L27          127 S E3-E5,E8-E11
               E UNKILA M/AU
L28           48 S E3-E5
               E KOMI J/AU
L29           12 S E3-E6
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                E PERALA M/AU
L30          21 S E3,E4,E6
                E KORTE H/AU
L31          23 S E3,E4,E10
                E HORMOS/PA,CS
L32          27 S E3-E19
L33          16 S L24 AND L25-L32
                E PHAGOCYTE/CT
L34        3427 S E3,E12
                E E12+ALL
                E E2+ALL
L35       32274 S E5+NT
                E NEUTROPHIL/CT
                E E3+ALL
L36       29239 S E24,E23
                E T CELL/CT
                E E4+ALL
L37       40180 S E20-E23
L38       70058 S E19+NT
                E E18+ALL
L39      169033 S E19,E18+NT
                E MYELOID/CT
                E E11+ALL
L40        2697 S E2
L41           4 S L24 AND L34-L40
                E ANIMAL RESPIRATION/CT
L42        1613 S E3 (L) BURST
                E RESPIRATION, ANIMAL/CT
L43        1421 S E4
                E REACTIVE OXYGEN/CT
                E E4+ALL
L44       22365 S E3
L45           2 S L24 AND L42-L44

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L46           1 S OXYGEN/CN

     FILE 'HCAPLUS' ENTERED AT 14:09:52 ON 30 SEP 2004
L47           1 S L24 AND L46
                E LIGNAN/CT
                E E4+ALL
L48         356 S L24 AND E2
L49         356 S L24 AND E2+NT
L50           4 S L41,L45,L47
L51           1 S L50 AND L33
L52           3 S L50 AND L48,L49
L53           4 S L50-L52
L54          65 S L20 (L) (THU OR DMA OR PAC OR PKT)/RL
L55         160 S L24 AND (PHARMACEUT? OR PHARMACOL? OR PATHOL? OR IMMUN?)/SC,S
L56         164 S L54,L55
L57           9 S L56 AND L33
L58           3 S L56 AND L53
L59           4 S L53,L58
L60           8 S L57 NOT L59

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L61           1 S 9003-99-0

     FILE 'HCAPLUS' ENTERED AT 14:15:57 ON 30 SEP 2004
L62           2 S L61 AND L24
L63           1 S L24 AND MYELOPEROXIDASE
L64           6 S L24 AND ?PEROXIDASE?
L65           6 S L62-L64
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L66           17 S L59,L60,L65
L67           14 S L66 AND (PD<=20011126 OR PRD<=20011126 OR AD<=20011126)
L68            3 S L66 NOT L67
                 SEL DN AN 1 3 9 11 12 14 L67
L69            8 S L67 NOT E1-E18
L70           11 S L68,L69
                 E TRANPLANTATION/CT
                 E TRANSPLANTATION/CT
L71          812 S E3
                 E TRANSPLANT/CT
L72          494 S E3
L73        87407 S E5+OLD,NT,PFT,RT
L74         5085 S E61
L75        76222 S E69+OLD,NT,PFT,RT
L76          812 S E72,E74
                 E E3+ALL
                 E E2+ALL
L77         7719 S E7-E16
L78        35079 S E6+NT
L79         6674 S E43+NT
L80        30585 S E42+NT
L81            5 S L24 AND L71-L80
L82            4 S L81 NOT AROMATASE/TI
L83           14 S L70,L82 AND L1,L22-L45,L47-L60,L62-L82
                 SEL HIT RN

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L84            6 S E1-E6
L85            4 S L84 AND L20
L86            2 S L84 AND L61,L46

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     FILE 'HCAPLUS' ENTERED AT 14:25:17 ON 30 SEP 2004
L87            3 S L24 AND ?PHAGOCYT?
L88            2 S L87 NOT L83

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L89          117 S L20
L90          215 S L23
L91          231 S L89,L90
L92            0 S L91 AND ?PHAGOCYT?
                 E PHAGOCYTE/CT
                 E E29+ALL
L93            1 S L91 AND E6+NT
L94            1 S L91 AND NEUTROPHIL
                 E MYELOID CELL/CT
                 E E8+ALL
L95            1 S L91 AND E3+NT
                 E LYMPHOCYTE/CT
L96            1 S L91 AND E6+NT
L97            0 S L91 AND E21+NT
L98            0 S L91 AND E43+NT
L99            0 S L91 AND E109+NT
L100           3 S L91 AND E157+NT
                 E T CELL/CT
                 E T CELLS/CT
                 E E3+ALL
L101           0 S L91 AND E2+NT
                 E E2+ALL
L102           3 S L91 AND E15+NT
                 E REACTIVE OXYGEN/CT
L103           0 S L91 AND E4+NT
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                E E4+ALL
L104            1 S L91 AND E13+NT
L105            2 S L91 AND E12+NT
                E RESPIRATION BURST/CT
                E RESPIRATORY BURST/CT
L106            1 S L91 AND E3+NT
L107            6 S L92-L106
L108            5 S L107 AND PY<=2001

     FILE 'MEDLINE' ENTERED AT 14:32:05 ON 30 SEP 2004

     FILE 'BIOSIS' ENTERED AT 14:32:12 ON 30 SEP 2004
L109          338 S L24
L110            4 S L109 AND (AHOTUPA ? OR ERKISSON ? OR KANGAS ? OR UNKILA ? OR
L111            0 S L109 AND (PHAGOCYT? OR NEUTROPHIL?)
L112            3 S L109 AND (T CELL OR LYMPHOCYT?)
L113            0 S L109 AND MYELOID CELL
L114            0 S L109 AND MYELOID
L115            0 S L109 AND (HEMATOPO? OR HAEMATOPO?)
L116            7 S L110,L112

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                E HYDROXYATAIRESINOL/DCN
                E HYDROXYMATAIRESINOL/DCN
                E MATAIRESINOL/DCN
                E MATAIRESINOL/CN
L118            2 S E3
                E HYDROXYMATAIRESINOL/CN
L119            1 S E3
                E ENTERLOCATONE/CN
                E ENTEROLACTONE/DCN
                E ENTEROLACTONE/CN
L120            2 S E3
L121            5 S L118-L120
L122            0 S 3 4 BIS 3 HYDROXY BENZYL DIHYDRO FURAN 2 ONE
L123            0 S 3 4 BIS 4 HYDROXY 3 METHOXY BENZYL DIHYDRO FURAN 2 ONE
L124            1 S L117 AND (PHAGOCYT? OR NEUTROPHIL? OR MYELOID? OR T CELL OR L

     FILE 'WPIX' ENTERED AT 14:42:49 ON 30 SEP 2004

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